

Scientific Information to Describe Areas Meeting Scientific Criteria for Mediterranean EBSAs

Information provided by OCEANA
to CBD and UNEP/MAP
for the Mediterranean EBSA Workshop

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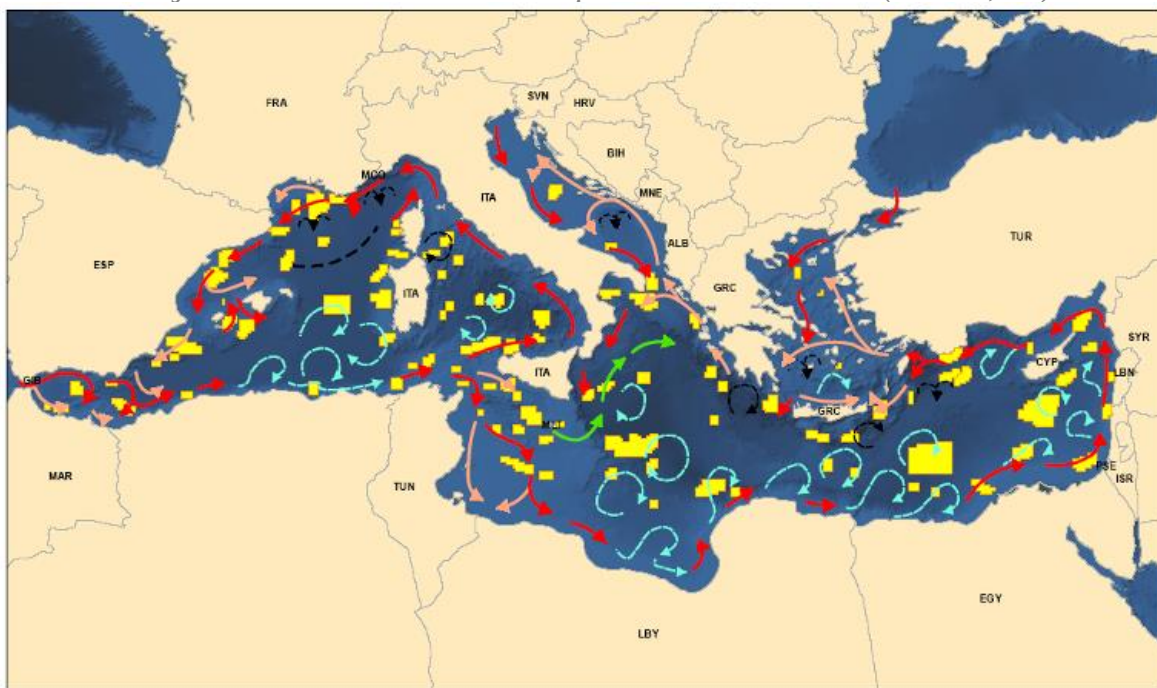
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In this report, 37 marine sites are described to contribute on the identification of Ecologically or Biologically Significant Areas (EBSAs) in the Mediterranean Sea in order to follow requirements under the Barcelona Convention (decision IG.21/5) and the Convention on Biological Diversity (decision X/29)¹. Oceana has identified these sites mainly because of the occurrence of species listed as protected (under several international Conventions or Reference Lists) or due to the presence of sensitive and/or essential habitats. When scientific information is either scarce or not available, several features are included due to its affection by the main circulation (mesoscale) patterns to ensure the connectivity within marine subregions in a potential MPA network.

The information provided through this document is an essential part of the Oceana MedNet project. Since it was launched, when possible, the information has been updated to feed the project and now to develop the current report. The MedNet proposal contains one hundred sites aiming to reach the Aichi Target 11² and it is mainly focused in covering the current gap in offshore protection in the Mediterranean Sea. As the proposal is mainly based on the seafloor geomorphology, a high fraction is represented by seamounts and submarine canyons, although many other features were added (mud volcanos, gyres, cold seeps, etc.) during the design process.

Figure 1. Oceana MedNet and main circulation patterns in the Mediterranean Sea (Marín et al, 2011)



In this document, we have selected those areas that Oceana considers as a priority for protection, including information required for filling EBSA template. The information for the rest of MedNet sites can be found in the Annex II (Ecological importance of Oceana MedNet sites) to the MedNet [report](#). Other ecologically valuable information from Oceana at-sea expeditions has been also incorporated to the document. On the other hand, additional material will be uploaded to Oceana's website available for downloading (see Annex) to support the information submitted to the Mediterranean EBSA workshop:

<http://webdisk.oceana.org>

FILE: [EBSA workshop 2014](#)

User: **oceanaeuoshared**

Password: **H0laoceana** (first in capital letter – second is a zero)

¹ UNEP/CBD/COP/DEC/IX/20 <http://www.cbd.int/doc/decisions/cop-09/cop-09-dec-20-en.pdf>

² <https://www.cbd.int/sp/targets/rationale/target-11/>

NOTES:

- The description of sites has been done from the West (Alboran Sea) to the East (Levantine basin)
- Regarding the interpretation of the table for the Assessment of the area against CBD EBSA Criteria, we have highlighted in green the criteria that are met in each site.
- The term “Territorial waters” has been used throughout the document to refer not only to the waters exclusively under national jurisdiction, but also to those potential/claimed or designated as EEZ areas beyond the Territorial Sea. The green line used in the maps represents the EEZ according to the kml version of the Flanders Institute (VLIZ) and it does not reflect Oceana position in this regard.

1. XAUEN AND TOFIÑO BANKS, AND SOUTHERN ALBORAN VOLCANOES

Description and key species

This proposal includes one of the most singular enclaves to the west of the Alboran Sea (see Figure 2) as it is composed by mud volcanos (Dhaka, Mulhacen and Maya) and seamounts (Xauen and Tofiño Banks). Mud volcanos give to this area a very special significance as this kind of geological feature has a very limited distribution in the Mediterranean (see Figure 3). Summits of the seamounts are topped by calcareous sediments (Martínez-García et al., 2011), providing the base for the settlement of sensitive habitats and species. Fluid seepage has also recently been found on these features (Poort et al., 2012). The area concentrates different cetacean species (striped dolphin, bottlenose dolphin, common dolphin, pilot whale, Cuvier's beaked whale) and small and large pelagic fisheries. Furthermore, it is used as feeding ground by seabirds. In addition, the seamounts are regarded as nurseries for small sharks of commercial interest such as the small-spotted catshark (*Scyliorhinus canicula*). This biodiversity maybe oceanographically influenced by the West Alboran Gyre and the Atlantic Anticyclonic Gyre (see Figure 4 and Figure 5). From the geological point of view, the Alboran volcanos are also very interesting structures that generate highly characteristic biological communities. The main threats arise from the use of destructive fishing gears and potential oil/gas prospections.

Depth Range	Approx. 200-800m	
Jurisdictional status	Morocco Territorial waters	
Location	Southern Alboran Volcanoes Latitude: 35° 25,014' N Longitude: 4° 36,217' W	Xauen and Tofiño Banks Latitud: 35° 24,207' N Longitud: 4° 6,053' W
MedNet Proposal	YES	
MEOW³	Alboran Sea	

KEY SPECIES	Features to be protected according CBD examples ⁴
Birds – breeding <i>Delphinus delphis</i> <i>Globicephala melas</i> Large Pelagics - fisheries <i>Scyliorhinus canicula</i> (nursery) Small Pelagics - habitat <i>Stenella coeruleoalba</i> <i>Tursiops truncatus</i> <i>Ziphius cavirostris</i>	Carbonate mounds Cold seeps Fronts Gyres Seabirds Seamount communities Sharks Whales and other cetaceans

A joint expedition (UNEP MAP-RAC/SPA, IUCN and OCEANA) was planned to take place in 2012, but unfortunately it was not carried out.

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance			
	No information	Low	Medium	High
Uniqueness or rarity				X
<i>Mud volcanos give to this area a very special significance as this kind of geological feature has a very limited distribution in the Mediterranean</i>				
Special importance for life-history stages of species				X

³ Marine Ecoregions Of the World according to Spalding, et al (2007). "Marine ecoregions of the world: a bioregionalization of coastal and shelf areas". BioScience, 57(7), 573-583.

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/colorado/scienceandstrategy/marine-ecoregions-of-the-world.pdf>

⁴ UNEP/CBD/EWS.MPA/1/2. Examples of features that would meet the scientific criteria for identifying ecologically or biologically significant marine areas or species. UNEP/CBD/EWS.MPA/1/2. Appendix to Annex II.

These seamounts are regarded as nurseries for small sharks of commercial interest such as the small-spotted catshark (*Scyliorhinus canicula*)

Importance for threatened, endangered or declining species and/or habitats					X
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Confluence of different cetacean species, some of them under international Convention Lists or the IUCN Red List

spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List(*)
<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)
<i>Globicephala melas</i>	Appendix II		Annex II	DD
<i>Stenella coeruleoalba</i>	Appendix II	Appendix II (Med)	Annex II	LC/VU (Med)
<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)
<i>Ziphius cavirostris</i>	Appendix II		Annex II	LC

Vulnerability, fragility, sensitivity, or slow recovery	X				
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No information available, although high probably occurrence of Cold Water Corals, sponge aggregations and other vulnerable habitats, including bubbling reefs and chemosynthetic communities.

Biological productivity				X	
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Because of the influence of the hydrology

Biological diversity				X	
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Confluence of pelagic biodiversity (small and large pelagic species of commercial interest and several species of cetaceans)

Naturalness	X				
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(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 2. Location of Xauen and Tofiño banks and Southern Alboran volcanoes

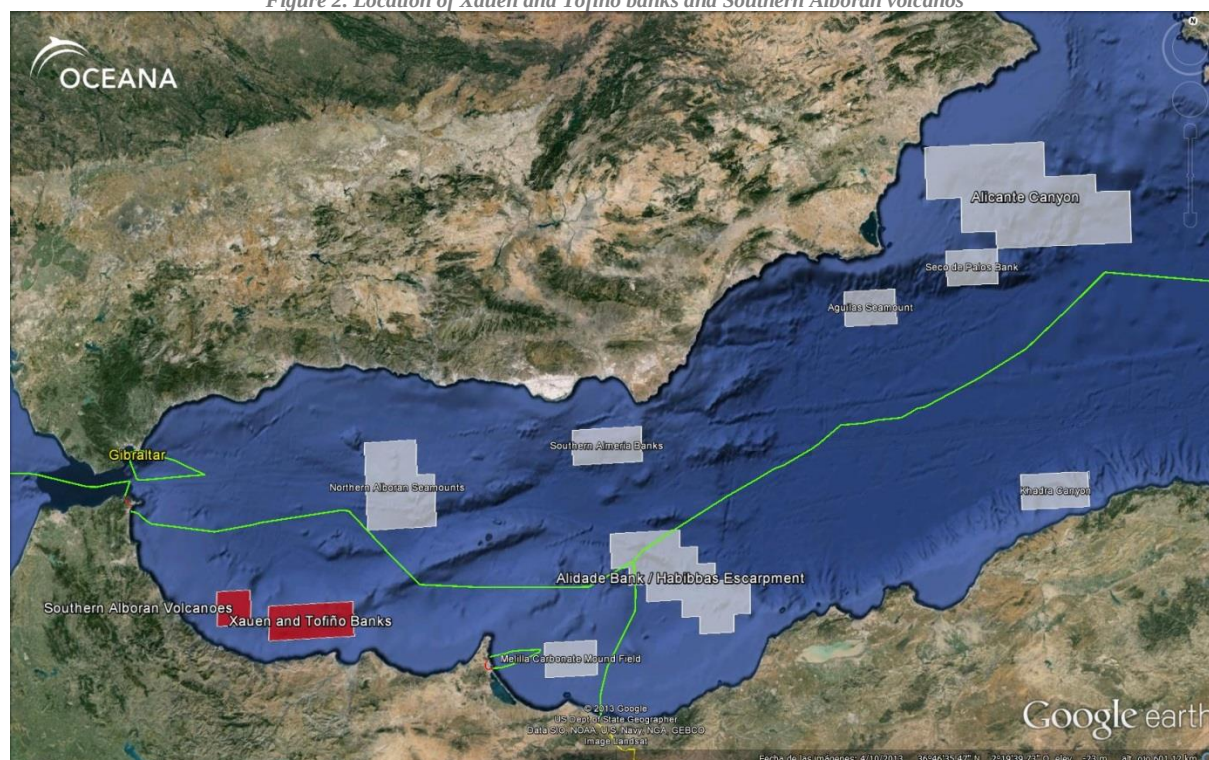


Figure 3. Southern Alboran volcanoes location. Shaded area: Mud Diapir Province. WAB: West Alboran Basin; EAB: East Alboran Basin; SAB: South Alboran Basin; AR: Alboran Ridge (Margreth et al, 2011)

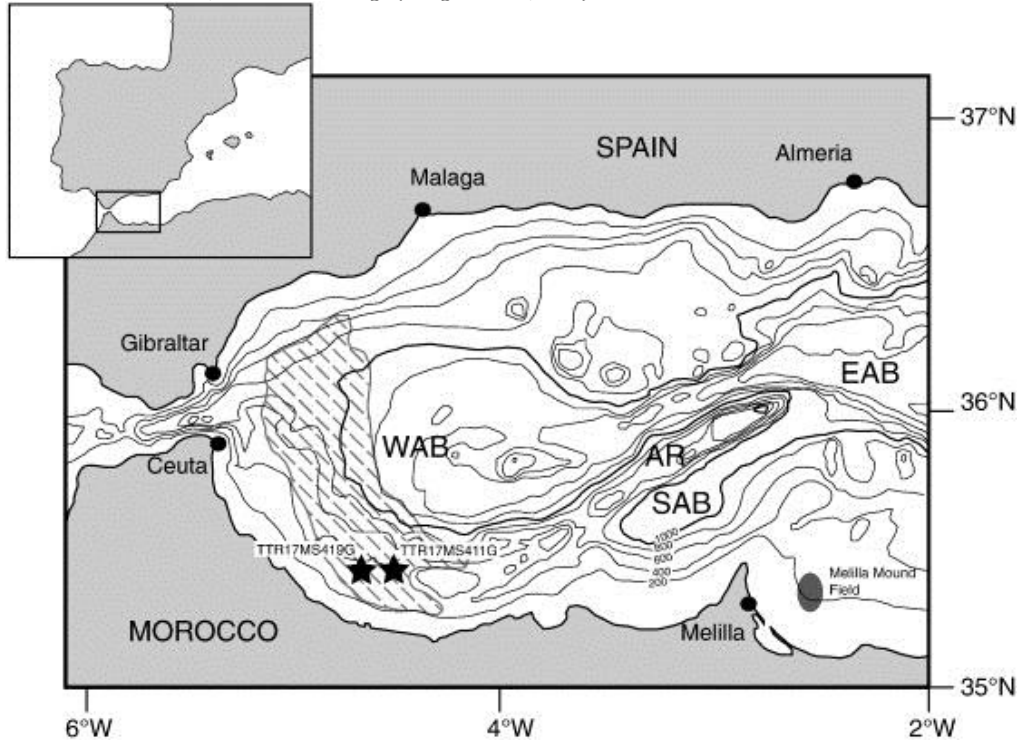


Figure 4. Schematized surface circulation pattern in the Alboran Sea (Western Mediterranean Sea). WAG: West Alboran Gyre. EAG: East Alboran Gyre. AC: Algerian Current. Box within dotted lines shows the study area (L'Helguen et al, 2002)

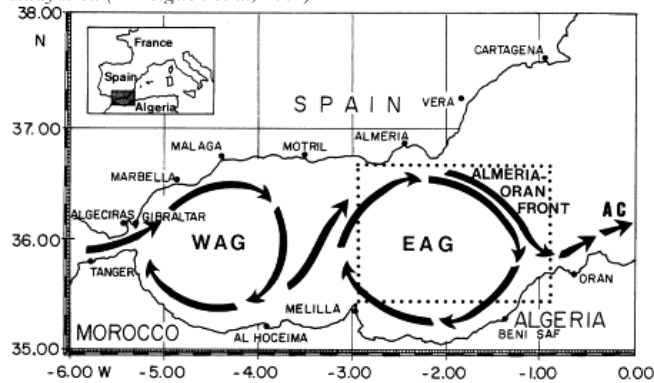
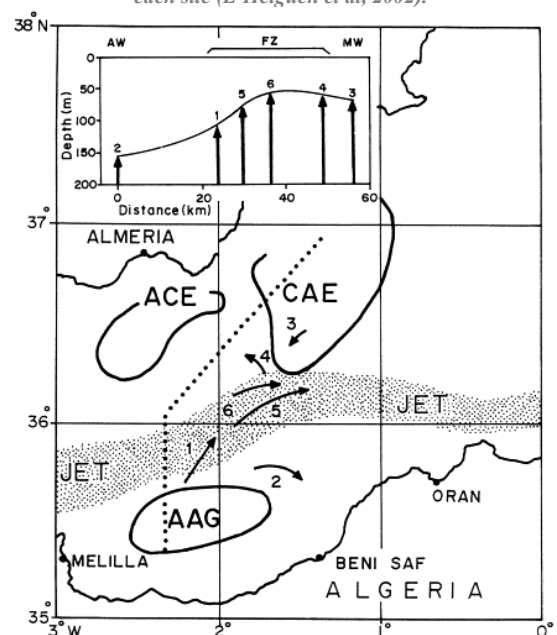


Figure 5. Main hydrological structures. AAG: Atlantic Anticyclonic Gyre. ACE: Almeria Cyclonic Eddy. CAE: Cartagena Anticyclonic Eddy. JET: frontal jet. Arrows show the drift direction of the sediment traps on deployment from each site (L'Helguen et al, 2002).



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2. CHELLA BANK

Description and key species

Chella Bank or Seco de los Olivos is a seamount located off the Spanish coast (12 nautical miles from the Almeria coast), rising from bottoms of -300m depth in its northern slope and descending to -700m depth in the southern slope (see Figure 6). It is influenced by two different oceanographic patterns, the SE-E and the NW-N currents, which have different speeds and temperatures. The summit of the main elevation (guyot) rises 76m under the sea level, so circalittoral and bathyal communities occur embracing a broad range of marine life, from photophilic algae to deep-sea habitats. Although it is not a large seamount (100km²), Chella Bank is one of the richest biodiversity features in Spanish waters, being this the reason of its inclusion in the European-Spanish project LIFE + INDEMARES to complete the Natura 2000 network at sea. Many marine species (more than 600) have been identified in the area, including protected and/or threatened species such as cetaceans, cnidarians and sponges as well as many priority species (under GFCM) of commercial value, from fish (*Pagellus bogaraveo*, *Lophius piscatorius*, *Mullus surmuletus*, *Trachurus trachurus*, *Sardina pilchardus*, *Xiphias gladius*, *Solea solea*, etc.) to crustaceans (*Palinurus elephas*, *Palinurus mauritanicus*, *Aristeus antennatus*, *Nephrops norvegicus*) and cephalopods (*Eledone cirrosa*, *Loligo vulgaris*, *Sepia officinalis*). The carnivorous sponge *Asbestopluma hypogea* was recorded in this area, being the first record of the species in Spanish waters and in the Mediterranean deep-sea waters (Aguilar *et al.*, 2011). Previously, this species was only known in shallow infralittoral caves of France and Croatia. It is worth highlighting another scientific finding in the Chella Bank, the stony coral *Anomocora fecunda* (Aguilar *et al.*, 2013), only known in the Macaronesian region and the Atlantic (see Figure 7). For the last four years as result of Oceana expeditions, a list of 20 habitats have been described and mapped in the seamount (e.g. coralligenous beds, sponge aggregations, cold water coral reefs, sea pens and bamboo gorgonian communities).

Depth Range	Approx. 80-700m
Jurisdictional status	Spain Territorial waters
Location	Latitude: 36°30'47.79"N Longitude: 02°51'47.05"W
MedNet Proposal	NO
MEOW	Alboran Sea

KEY SPECIES		Features to be protected according CBD examples
<i>Anomocora fecunda</i>	<i>Hexanchus griseus</i>	Cold water coral reefs
<i>Antipathella subpinnata</i>	<i>Javania cailleti</i>	Coral, sponge and bryozoan aggregations
<i>Antipathes dichotoma</i>	<i>Leiopathes glaberrima</i>	Fronts
<i>Anthomastus</i> sp.	<i>Leptogorgia sarmentosa</i>	Highly migratory fish
<i>Aplysina aerophoba</i>	<i>Leptometra phallangium</i>	Seamount communities
<i>Asbestopluma hypogea</i>	<i>Lophelia pertusa</i>	Sea turtles
<i>Axinella polypoides</i>	<i>Madrepora oculata</i>	Sharks
<i>Babelomurex cariniferus</i>	<i>Merluccius merluccius</i>	Submerged atolls, bank and guyot communities
<i>Balaenoptera acutorostrata</i>	<i>Mitra zonata</i>	Upwelling areas
<i>Callogorgia verticillata</i>	<i>Neopycnodonte zibrowii</i>	Whales and other cetaceans
<i>Calyx nicaeensis</i>	<i>Nicella granifera</i>	
<i>Caretta caretta</i>	<i>Oxynotus centrina</i>	
<i>Centrophorus granulosus</i>	<i>Palinurus elephas</i>	
<i>Centrostephanus longispinus</i>	<i>Paramuricea clavata</i>	
<i>Charonia lampas</i>	<i>Parantipathes larix</i>	
<i>Corallium rubrum</i>	<i>Pentapora fascialis</i>	
<i>Delphinus delphis</i>	<i>Pourtalosmilia anthophyllites</i>	
<i>Dendrobrachia bonsai</i>	<i>Ranella olearium</i>	
<i>Dendrophyllia cornigera</i>	<i>Savalia savaglia</i>	
<i>Dendrophyllia ramea</i>	<i>Scyllarus arctus</i>	
<i>Ellisella paraplexauroides</i>	<i>Sideractis glacialis</i>	
<i>Epinephelus caninus</i>	<i>Spongia agaricina</i>	
<i>Eunicella verrucosa</i>	<i>Stenella coeruleoalba</i>	
<i>Gaidropsarus granti</i>	<i>Tethya aurantium</i>	
<i>Geodia cydonium</i>	<i>Tursiops truncatus</i>	
<i>Globicephala melas</i>	<i>Xiphias gladius</i>	
<i>Hacelia attenuata</i>	<i>Zonaria pyrum</i>	
<i>Halocynthia papillosa</i>		

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																																																																																																																																																																																	
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Rare species like carnivorous sponges (<i>Asbestopluma hypogea</i>) and large specimens of long-live black corals like <i>Leiopathes glaberrima</i>																																																																																																																																																																																																		
Special importance for life-history stages of species			X																																																																																																																																																																																															
Important feeding area for cetaceans, specially <i>Tursiops truncatus</i> and <i>Globicephala melas</i> . Mating site for groupers (<i>Epinephelus caninus</i>)																																																																																																																																																																																																		
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II		<i>Aplysina aerophoba</i>			Annex II		<i>Asbestopluma hypogea</i>			Annex II		<i>Axinella polypoides</i>			Annex II		<i>Balaenoptera acutorostrata</i>	Appendix I		Annex II	LC	<i>Callogorgia verticillata</i>			Annex II		<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Centrophorus granulosus</i>			Annex III	VU/VU (Med)	<i>Centrostephanus longispinus</i>			Annex II		<i>Charonia lampas</i>			Annex II		<i>Corallium rubrum</i>			Annex III		<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)	<i>Dendrophyllia cornigera</i>	Appendix II				<i>Dendrophyllia ramea</i>	Appendix II				<i>Ellisella paraplexauroides</i>			Annex II		<i>Eunicella verrucosa</i>				VU	<i>Geodia cydonium</i>			Annex II		<i>Globicephala melas</i>	Appendix II		Annex II	DD	<i>Hexanchus griseus</i>			Annex II	NT/VU (Med)	<i>Isurus oxyrinchus</i>		Appendix II	Annex II	VU/CR (Med)	<i>Javania caillieti</i>	Appendix II				<i>Leiopathes glaberrima</i>	Appendix II		Annex II		<i>Lophelia pertusa</i>	Appendix II		Annex II		<i>Madrepora oculata</i>	Appendix II		Annex II		<i>Merluccius merluccius</i>				VU (Med)	<i>Mitra zonata</i>			Annex II		<i>Oxynotus centrina</i>			Annex II	VU/CR (Med)	<i>Palinurus elephas</i>			Annex III		<i>Parantipathes larix</i>	Appendix II		Annex II		<i>Pourtalesmilia anthophyllites</i>	Appendix II		Annex II		<i>Prionace glauca</i>			Annex III	NT/VU (Med)	<i>Ranella olearium</i>			Annex II	Lower Risk/NT	<i>Savalia savaglia</i>			Annex II		<i>Scyllarus arctus</i>			Annex III		<i>Stenella coeruleoalba</i>	Appendix II	Appendix II (Med)	Annex II	LC/VU (Med)
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<i>Tethya aurantium</i>			Annex II	
<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)
<i>Xiphias gladius</i>			Annex III	NT (Med)
<i>Zonaria pyrum</i>			Annex II	
Vulnerability, fragility, sensitivity, or slow recovery				
			X	
<i>High vulnerability to fishing activities (trawling, lost gears, etc) for coral and sponge communities, and impact from dense maritime traffic to cetaceans. Occurrence of red tides (Noctiluca scintillans)</i>				
Biological productivity				
			X	
<i>Big schools of small pelagics (Engraulis encrasicolus, Thachurus sp., Scomber scombrus, etc.) and important crustaceans grounds (Nephrops norvegicus, Plesionika spp.). It is considered an important nursery area for hake (Merluccius merluccius)</i>				
Biological diversity				
				X
<i>It is a meeting point for Mediterranean and Atlantic species</i>				
Naturalness				
			X	
<i>Impacted by human activities, mainly fishing, but with high valuable habitats and species</i>				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 6. Location of the Chella bank



Figure 7. *Anomocora fecunda* distribution in the Atlantic Ocean. Source: OBIS <http://iobis.org/mapper/?taxon=Anomocora%20fecunda>

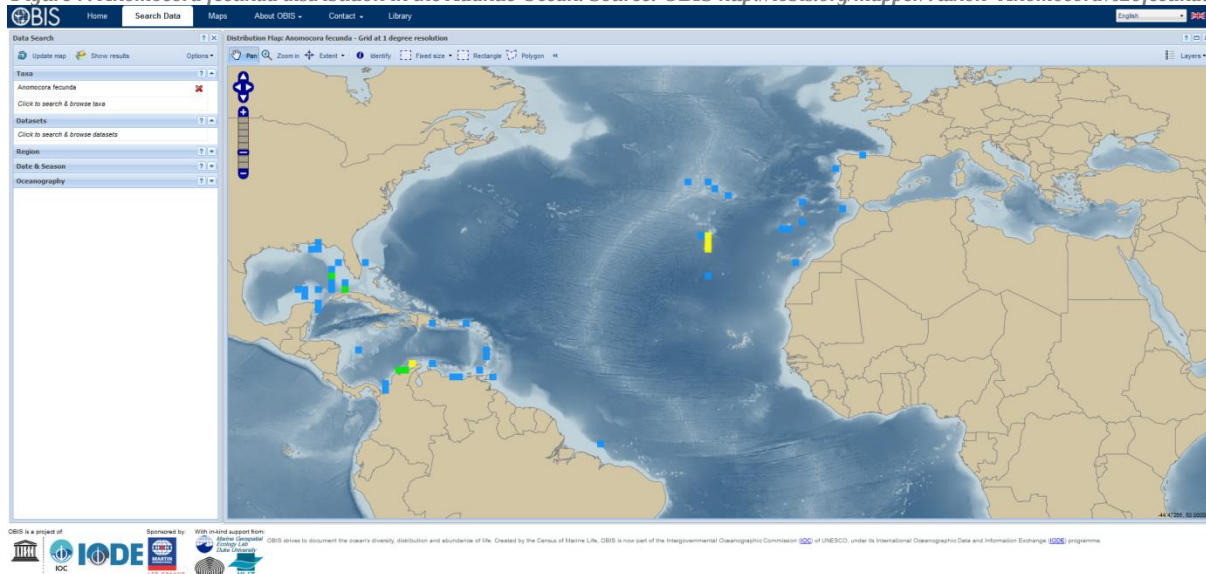


Figure 8. Glass sponge aggregation (*Asconema setubalense*)



Figure 9. Coralligenous habitat



Figure 10. *Dendrophyllia ramea*



Figure 11. *Epinephelus caninus*

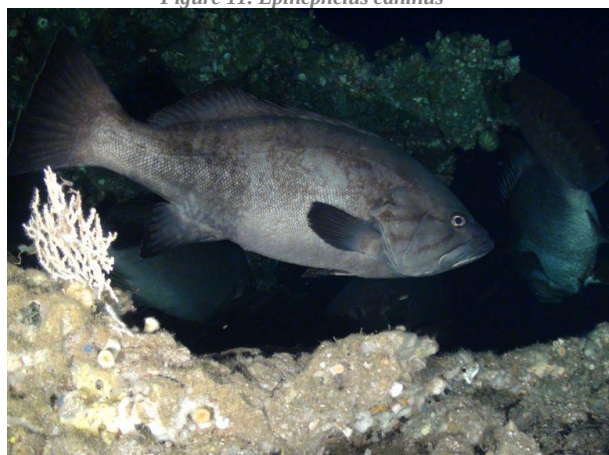


Figure 12. *Leiopathes glaberrima*



Figure 13. *Pagurus arrosor* with *Ramella olearia* shell and
Madrepora oculata



Figure 14. Deep-sea shark (Oxynotus centrina)



Figure 15. Cidaris cidaris facies



Figure 16. Corallium rubrum

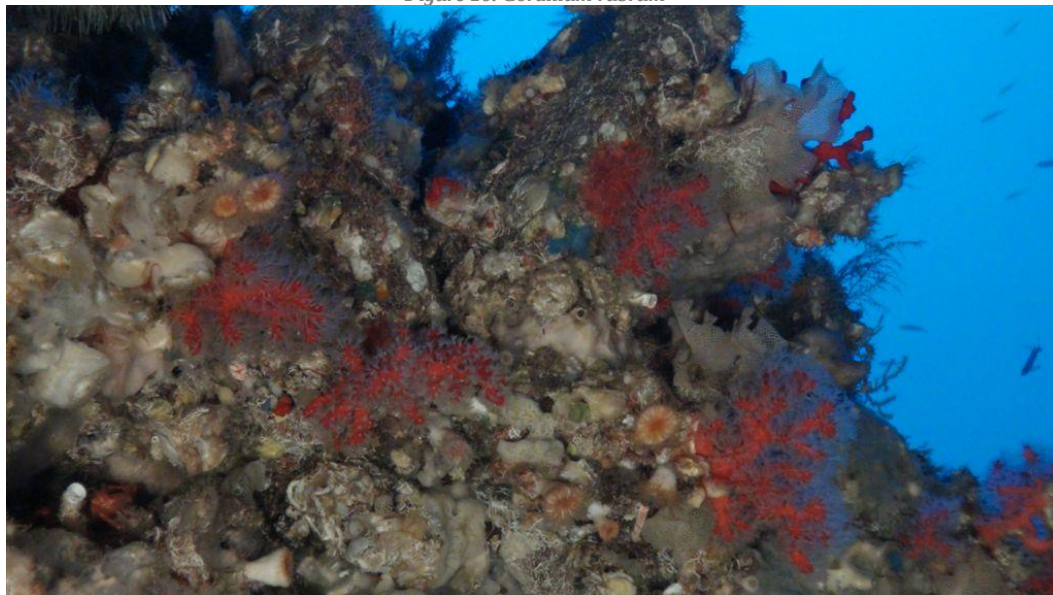


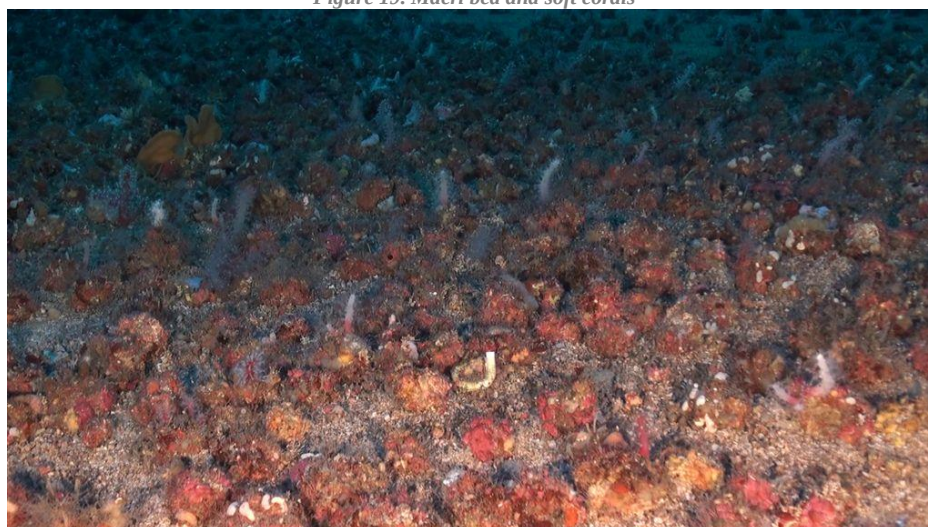
Figure 17. Lophius piscatorius



Figure 18. Pteroctopus tetracirrhus



Figure 19. Maërl bed and soft corals



References

Aguilar R., López Correa M., Calcinai B., Pastor X., de la Torriente A. & S. Garcia (2011). First records of *Asbestopluma hypogea* Vacelet and Boury-Esnault, 1996 (Porifera, Demospongiae, Cladorhizidae) on seamounts and in bathyal settings of the Mediterranean Sea. In: *Zootaxa* 2925 (2011), pp 33-40

Aguilar R., Pastor X., García S & P. Marín (2013). Importance of seamount-like features for conserving Mediterranean marine habitats and threatened species. 40th CIESM Congress. Marseille, France. 28 October - 1 November 2013.

OBIS (2014). Global biodiversity indices from the Ocean Biogeographic Information System. Intergovernmental Oceanographic Commission of UNESCO. Web. <http://www.iobis.org> (consulted on 14/03/14)

3. ALIDADE BANK AND HABIBBAS ESCARPMENT

Description and key species

The proposal contains one of the largest geomorphological formations in the Alboran Sea, including different kind of underwater elevations (Alidade Bank and Yusuf ridge) and a large escarpment (Habibbas) which reaches around 1,000 meters depth. The seamounts probably influence the Almería-Oran front and the oceanographic features of the area. For this reason, it is a large pelagic fishery where different dolphin species (*Delphinus delphis*, *Globicephala melas*, *Stenella coeruleoalba*, *Tursiops truncatus*) as well as other cetaceans such as Cuvier's beaked whale (*Ziphius cavirostris*) are concentrated. It is also a distribution area for loggerhead turtle (*Caretta caretta*) which commonly use the dominant surface currents for their large migrations and to locate feeding grounds. It is also relevant for seabird feeding. Furthermore, the area closest to the shore was regarded, in the late 70s, as one of the few distribution areas for Mediterranean monk seal (*Monachus monachus*).

Depth Range	Approx. 600-1700m
Jurisdictional status	Territorial waters from Algeria, Morocco and Spain
Location (centroid)	Latitude: 35° 50,461' N Longitude: 1° 47,522' W
MedNet Proposal	YES
MEOW	Alboran Sea

KEY SPECIES		Features to be protected according CBD examples
Birds - breeding	<i>Monachus monachus</i>	Seamount communities
<i>Caretta caretta</i>	<i>Stenella coeruleoalba</i>	Seabirds
<i>Delphinus delphis</i>	<i>Tursiops truncatus</i>	Sea turtles
<i>Globicephala melas</i>	<i>Ziphius cavirostris</i>	Gyres
Large Pelagics - fisheries		Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

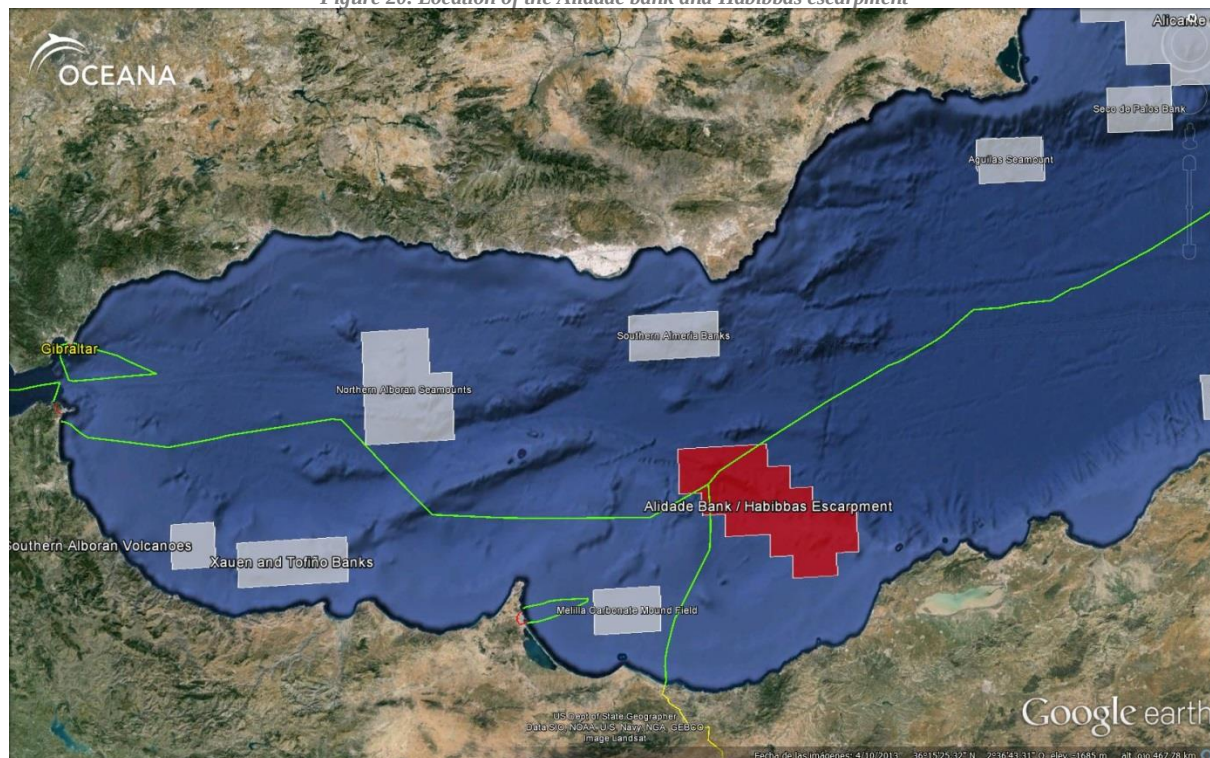
CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																											
	No information	Low	Medium	High																																								
Uniqueness or rarity																																												
Special importance for life-history stages of species																																												
Importance for threatened, endangered or declining species and/or habitats				X																																								
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Biological productivity																																												
Biological diversity																																												

Naturalness				
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(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 20. Location of the Alidade bank and Habibbas escarpment



References

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- Sergeant D., Ronald K., Boulva J. & F. Berkes (1978). The recent status of *Monachus monachus*, the Mediterranean monk seal, Biological Conservation, Volume 14, Issue 4, December 1978, Pages 259-287, ISSN 0006-3207, doi: 10.1016/0006-3207(78)90044-7

4. CABLIERS BANK

Description and key species

The Cabliers Bank is a volcanic formation conformed by two elevations, the one in the Western named Catifas, (summit at 350m depth) and the other in Eastern, named Cabliers (summit at 250m depth). The bank reaches depths exceeding 1000m on its northern flank (see Figure 20; **Error! No se encuentra el origen de la referencia.**). Invertebrates such as spiny lobsters (*Palinurus mauritanicus*) and Norway lobsters (*Nephrops norvegicus*), echinoderms as *Cidaridiscus cidaris*, cnidarians as *Kophobelemnites stelliferum* and *Isidella elongata* or sand mason worms (*Lanice conchilega*) are abundant in detritic and muddy bottoms. In areas of compacted muddy bottoms with small rocky outcrops, the occurrence of glass sponge aggregations (*Asconema setubalense*) is relevant associated to several species of fishes such as blue-mouth (*Helicolenus dactylopterus*), scorpionfish (*Scorpaena* sp.) and rat-tails (*Coelorrhinus caelorrhinus*) among others. The bank is also characterized by the presence of large coral reefs of *Lophelia pertusa* and *Madrepora oculata*, which reach more than one meter high in some locations. This is likely one of the largest live cold-water reefs documented up to date in the Mediterranean Sea covering an area of over 100,000 m². Gorgonians *Acanthogorgia armata* and *A. hirsuta* are also common together with black corals (*Antipathes dichotoma*, *Leiopathes glaberrima*, *Parantipathes larix*, etc.) and some isolated colonies of *Dendrophyllia cornigera*, more developed in other areas of this bank. In certain areas glass sponge aggregations (*Asconema setubalense*) are highly significant with a scattered presence of small living colonies of *Lophelia pertusa* and solitary corals (*Desmophyllum dianthus*). Some fish species can be found in these reefs such as *Helicolenus dactylopterus*, *Coelorrhinus caelorrhinus*, *Pagellus bogaraveo* and *Conger conger*, or cephalopods such as *Sepiella oweniana*, *Pteroctopus tetracirrhos* and *Eledone cirrhosa*.

Depth Range	Approx. 300-1000 meters
Jurisdictional status	Morocco and Spain Territorial waters
Location	Latitude: 35° 48,8404'N Longitude: 02° 16, 2912'W
MedNet Proposal	NO
MEOW	Alboran Sea

KEY SPECIES		Features to be protected according CBD examples
<i>Asbestopluma hypogea</i>	<i>Kinetoskias cf. smithii</i>	Cold water coral reefs Coral, sponge and bryozoan aggregations Seamount communities
<i>Asconema setubalense</i>	<i>Leucoraja circularis</i>	
<i>Acanthogorgia armata</i>	<i>Leiopathes glaberrima</i>	
<i>Acanthogorgia hirsuta</i>	<i>Leptometra phallangium</i>	
<i>Antipathes dichotoma</i>	<i>Lophelia pertusa</i>	
<i>Anthomastus</i> sp.	<i>Madrepora oculata</i>	
<i>Callogorgia verticillata</i>	<i>Nicella granifera</i>	
<i>Coelorrhinus caelorrhinus</i>	<i>Nephrops norvegicus</i>	
<i>Conger conger</i>	<i>Pagellus bogaraveo</i>	
<i>Dalatias licha</i>	<i>Parantipathes larix</i>	
<i>Dendrobrachia bonsai</i>	<i>Palinurus mauritanicus</i>	
<i>Dendrophyllia cornigera</i>	<i>Savalia savaglia</i>	
<i>Desmophyllum dianthus</i>	<i>Scorpaena</i> sp.	
<i>Eledone cirrhosa</i>	<i>Sepiella oweniana</i>	
<i>Helicolenus dactylopterus</i>	<i>Stenocyathus vermiformis</i>	
<i>Isidella elongata</i>	<i>Trigla lyra</i>	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance													
	No information	Low	Medium	High										
Uniqueness or rarity														
Large live coral reefs are rare in the Mediterranean. Cabliers bank has a diverse and well represented CWC reef with some species that can be new to science, like a black corals that is being identified. Other not common species like carnivorous sponges (<i>Asbestopluma hypogea</i>) and mushroom corals (<i>Anthomastus</i> sp.) are also present.														
Special importance for life-history stages of species														
It seems to be an important area for seabream (<i>Pagellus bogaraveo</i>)														
Importance for threatened, endangered or declining species and/or habitats				X										
<table> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> <tr> <td><i>Antipathes dichotoma</i></td><td>Appendix II</td><td></td><td>Annex II</td><td></td></tr> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Antipathes dichotoma</i>	Appendix II		Annex II	
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)										
<i>Antipathes dichotoma</i>	Appendix II		Annex II											

<i>Asbestopluma hypogea</i>	-	-	Annex II	-
<i>Callogorgia verticillata</i>	-	-	Annex II	-
<i>Dalatias licha</i>				NT
<i>Desmophyllum dianthus</i>	Appendix II			
<i>Dendrophyllia cornigera</i>	Appendix II			
<i>Leiopathes glaberrima</i>	Appendix II	-	Annex II	-
<i>Leucoraja circularis</i>	Appendix II		Annex II	CR (Med)
<i>Lophelia pertusa</i>	Appendix II		Annex II	-
<i>Madrepora oculata</i>	Appendix II	-	Annex II	-
<i>Parantipathes larix</i>	Appendix II	-	Annex II	-
<i>Savalia savaglia</i>			Annex II	
<i>Stenocyathus vermiformis</i>	Appendix II			

Isidella elongata constitutes an essential habitat for several commercial species, reason why this facie has almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone *et al.* 2006).

Vulnerability, fragility, sensitivity, or slow recovery X

Deep-sea coral species are extremely vulnerable and fragile species to face **physical impacts** (bottom gears). The effects of **climate change** and **ocean acidification** on the Mediterranean Sea may affect corals' ability to grow and maintain the carbon-based structures of certain species (Otero *et al.*, 2013; Maier *et al.*, 2012; OSPAR, 2010). Organisms that have aragonite shells or skeletons (e.g. cold water corals) are unlikely to survive below the aragonite carbonate compensation depth (CCD) (Harris & Whiteway, 2010), which is expected to decrease as a consequence of global warming. Black corals have been demonstrated to be species with a very **slow growth rate** (especially for *Leiopathes glaberrima* which is considered as one of the most long-living organisms known on Earth; estimated at more than 2000 or even more 4000 years old – (Roark *et al.*, 2009)

Biological productivity

Biological diversity X

High biodiversity due to the occurrence of deep-sea corals (Pardo *et al.*, 2011)

Naturalness X

Only a few lost fishing gears were found. Most of the reef is very well preserved

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 20. Location of the Cabliers bank

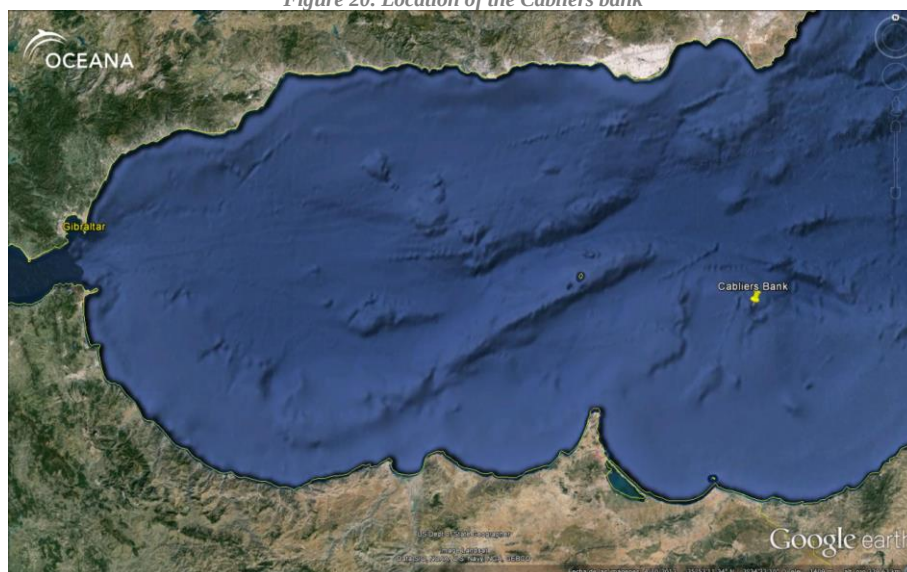


Figure 21. Capture from ROV raw footage during diving on Cabliers Bank © OCEANA



Figure 22. Black coral (*Leiopathes glaberrima*). Cabliers bank, Alboran Sea © OCEANA



Figure 23. Black corals (*Parantipathes larix*) and glass sponges (*Asconema setubalense*) at Cabliers Bank, Alboran Sea © OCEANA



Figure 24. Cold water coral (*Lophelia pertusa*) reef at Cabliers Bank, Alboran Sea © OCEANA



Figure 25. Coral (*Isidella elongata*) at Cabliers bank © OCEANA

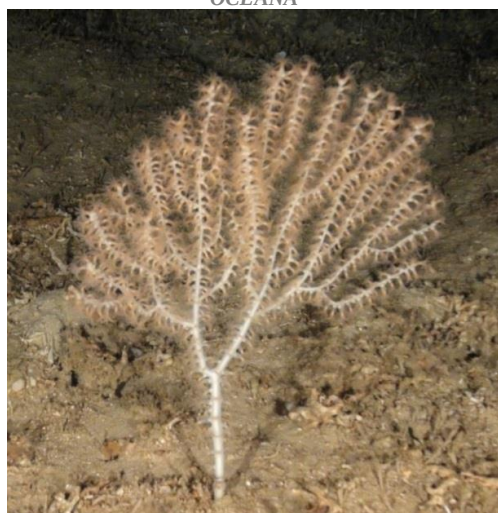


Figure 26. Gorgonian (*Callogorgia verticillata*) and glass sponge (*Asconema setubalense*) at Cabliers bank © OCEANA



Figure 27. Glass pedunculated sponges and carnivorous sponge (*Asbestopluma hypogea*) at Cabliers Bank, Alboran Sea © OCEANA

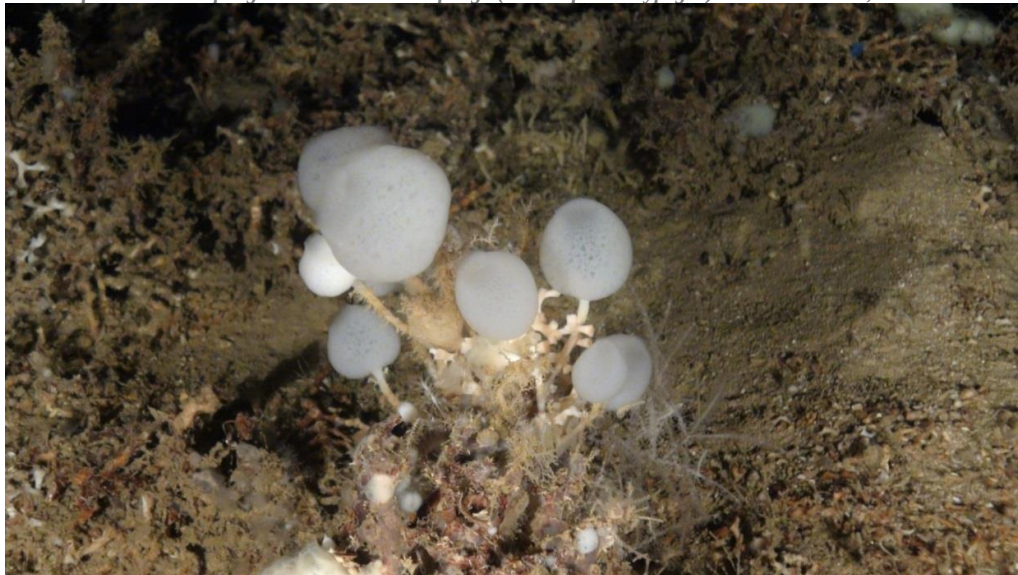


Figure 28. Piper gurnard (*Trigla lyra*) at Cabliers Bank © OCEANA



Figure 29. Norway lobster (*Nephrops norvegicus*) at Cabliers Bank © OCEANA



Figure 30. Cold Water Coral reef (*Lophelia pertusa* and *Madrepora oculata*) at Cabliers Bank, Alboran Sea © OCEANA



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Further information from Oceana expeditions (images, footage, maps, etc.) is available upon request

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5. SECO DE PALOS SEAMOUNT

Description and key species

Seco de Palos is a seamount off the SE coast of Spain (see Figure 31) that harbors many communities and habitats of ecological interest which are extremely fragile to negative human impacts. Those habitats include large gorgonian gardens and extensive fields of soft corals near the summit, as well as crinoid fields in bathyal zones. Gorgonian gardens can be found in the shallower areas over rocky substrate (down to 100m depth) where the red gorgonian *Paramuricea clavata* (see Figure 35) is the dominant species. Deeper to -160m, deep-sea gorgonian gardens occurs. They are conformed by *Viminella flagellum* (see Figure 36) and by *Callorgorgia verticillata* and *Swiftia pallida* in deeper areas. Some of the most significant habitats, because of their abundant occurrence, are those dominated by soft corals of the genus *Paralcyonium spinulosum* and *Alcyonium palmatum*. These alcionacea corals constitute large gardens between 110-150m depth over rocky substrate (see Figure 32). There are another interesting community-forming species (tubeworm *Lanice conchilega*) relatively common throughout the area occurring in high wide-range concentrations (171-602m depth), however, the highest concentrations were found about 350m. Sensitive Habitats such as crinoid beds of *Leptometra phalangium* which in certain places of the Mediterranean is considered as assemblage with hake (*Merluccius merluccius*), blue whiting (*Micromesistius poutassou*) or pout (*Trisopterus capelanus*) can also be found in the area. Such habitats have been documented in depths about 375m mainly over rocky bottom, in spite of their typical occurrence in soft bottoms. The seamount also harbors many protected and/or threatened species, and even new findings such as the giant foraminifera *Spiculosphon oceana* (Maldonado *et al.*, 2013). Along the exploration of the seamount many shark eggs (Rajidae) were found, thus it suggests that the area can be used as spawning ground for these elasmobranches (see Figure 33). The seamount is a very well known area for large pelagic species, like tuna, swordfish, marlins, sharks, cetaceans and sea turtles.

Depth Range	Approx. 95-1200m
Jurisdictional status	Spain Territorial waters
Location	Latitude: 37° 34,435' N Longitude: 0° 5,889' W
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples
<i>Alcyonium palmatum</i>	<i>Lappanella fasciata</i>	Cold water coral reefs Coral, sponge and bryozoan aggregations Highly migratory fish Seamount communities Sharks
<i>Anthias anthias</i>	<i>Lepidopus caudatus</i>	
<i>Aulopus filamentosus</i>	<i>Leptometra phalangium</i>	
<i>Balaenoptera physalus</i>	<i>Leucoraja naevus</i>	
<i>Calappa granulata</i>	<i>Liocarcinus depurator</i>	
<i>Callogorgia verticillata</i>	<i>Merluccius merluccius</i>	
<i>Capros aper</i>	<i>Mola mola</i>	
<i>Caretta caretta</i>	<i>Molva dypterygia</i>	
<i>Caryophyllia cyathus</i>	<i>Mullus surmuletus</i>	
<i>Cetorhinus maximus</i>	<i>Muraena helena</i>	
<i>Chaetaster longipes</i>	<i>Nidalia</i> sp.	
<i>Chelidonichthys cuculus</i>	<i>Ophiothrix fragilis</i>	
<i>Coelorinchus caelorhincus</i>	<i>Palinurus elephas</i>	
<i>Conger conger</i>	<i>Paralcyonium spinulosum</i>	
<i>Corallinacea n.i.</i>	<i>Paramuricea clavata</i>	
<i>Coris julis</i>	<i>Phycis blennoides</i>	
<i>Dendrophyllia cornigera</i>	<i>Phycis phycis</i>	
<i>Dermochelys coriacea</i>	<i>Physeter macrocephalus</i>	
<i>Echinus melo</i>	<i>Ranella olearium</i>	
<i>Epinephelus caninus</i>	<i>Scorpaena scrofa</i>	
<i>Eunicella verrucosa</i>	<i>Serranus cabrilla</i>	
<i>Filograna implexa</i>	<i>Spiculosphon oceana</i>	
<i>Gadiculus argenteus</i>	<i>Stenella coeruleoalba</i>	
<i>Globicephala melas</i>	<i>Swiftia pallida</i>	
<i>Helicolenus dactylopterus</i>	<i>Thunnus thynnus</i>	
<i>Hexanchus griseus</i>	<i>Viminella flagellum</i>	

<i>Holothuria forskali</i>	<i>Xiphias gladius</i>
<i>Hoplostethus mediterraneus</i>	

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Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																																																																																												
	No information	Low	Medium	High																																																																																																									
Uniqueness or rarity																																																																																																													
Special importance for life-history stages of species	X																																																																																																												
<i>Sharks spawning ground</i>																																																																																																													
Importance for threatened, endangered or declining species and/or habitats				X																																																																																																									
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Maps and Figures

Figure 31. Location of the Seco de Palos seamount

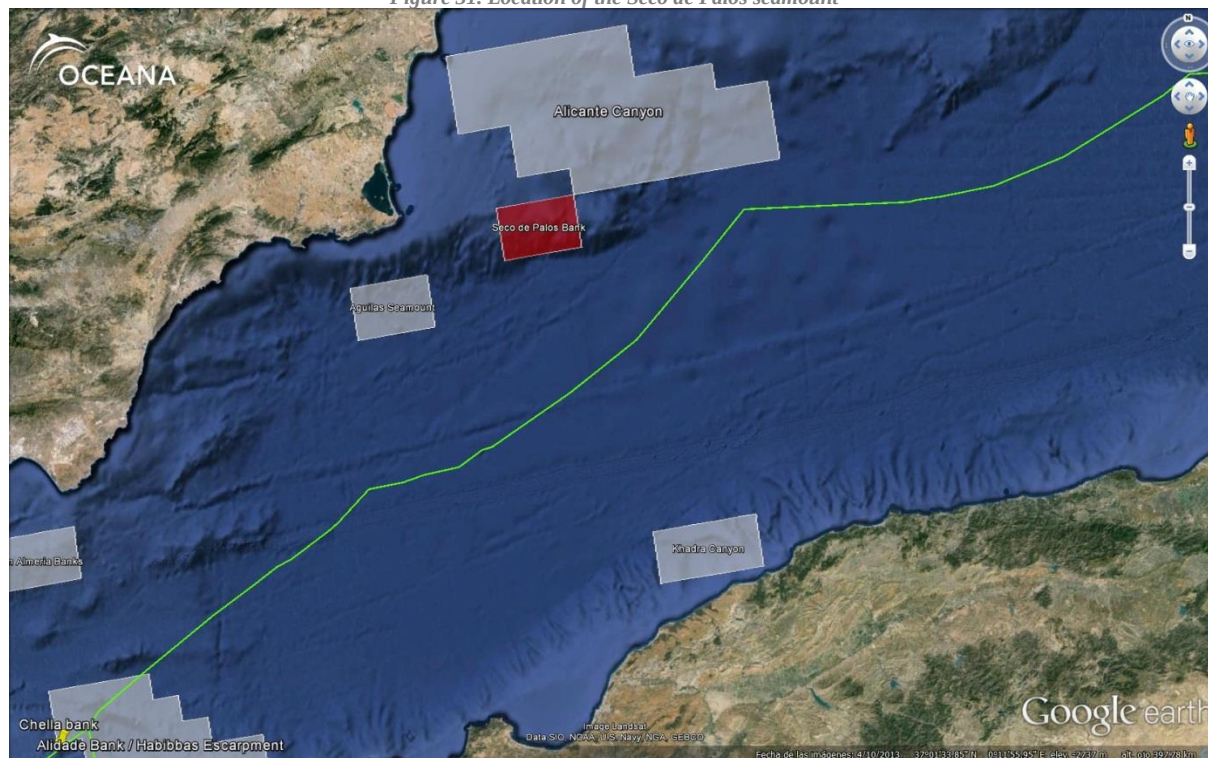


Figure 32. *Alcionacea (Paralcyonium spinulosum)* garden over rocky bottom © OCEANA

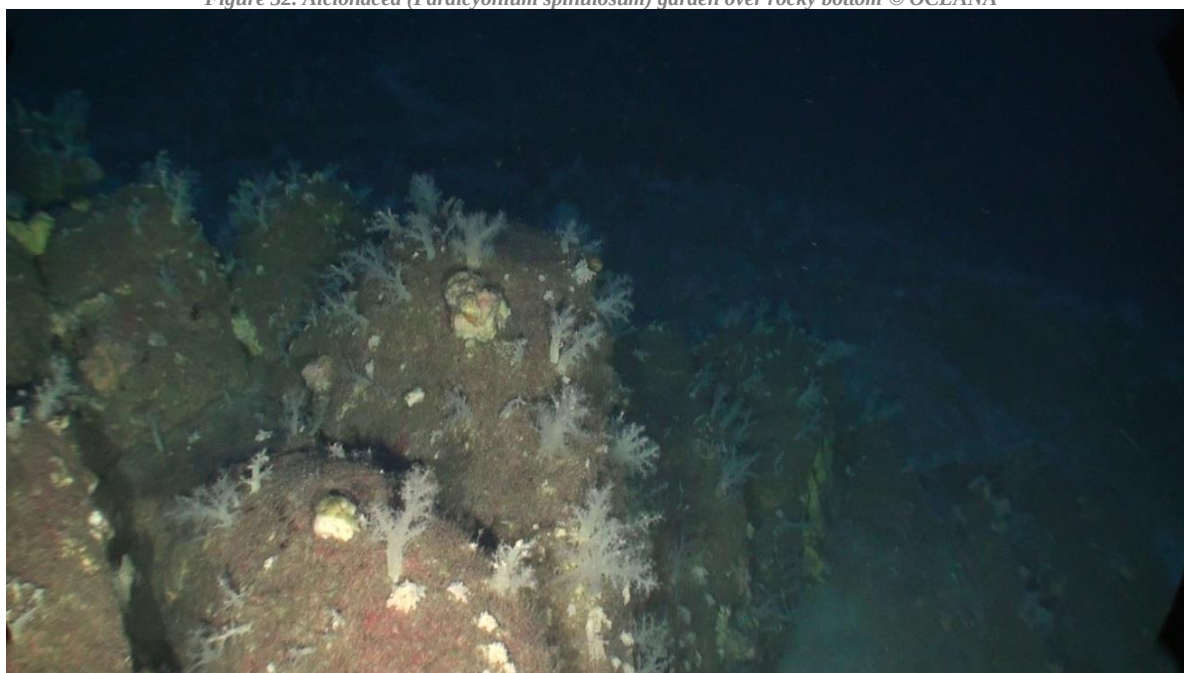


Figure 33. Egg of *Leucoraja naevus* © OCEANA



Figure 34. Sunfish (*Mola mola*) © OCEANA



Figure 35. Gorgonian garden of *Paramuricea clavata* © OCEANA



Figure 36. Gorgonian garden of *Viminella flagellum* © OCEANA



Figure 37. *Callogorgia verticillata* © OCEANA



Figure 38. *Swiftia palida* © OCEANA



Figure 39. Grouper (*Epinephelus caninus*) © OCEANA



Figure 40. Lobster (*Palinurus elephas*) © OCEANA



Figure 41. Bluntnose sixgill shark (*Hexanchus griseus*).
© OCEANA



Figure 42. *Ranella olearia* © OCEANA



Figure 43. Soft coral (*Paralcyonium spinulosum*) ©
OCEANA

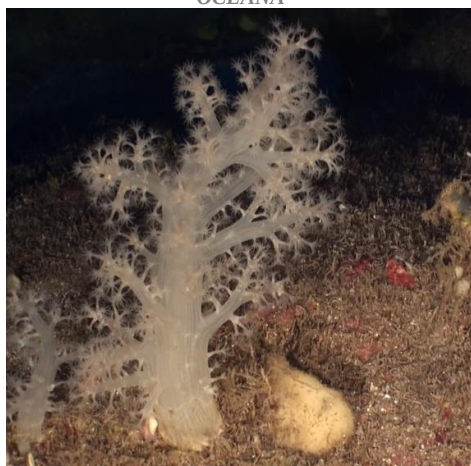


Figure 44. Hake (*Merluccius merluccius*) © OCEANA



References

Maldonado M., López-Acosta M., Sitjà C., Aguilar R., García S & J Vacelet (2013). A giant foraminifer that converges to the feeding strategy of carnivorous sponges: *Spiculosisiphon*

oceanus sp. nov. (Foraminifera, Astrorhizida). *Zootaxa* 3669 (4): 571–584

6. ALICANTE CANYON

Description and key species

This is one of the largest submarine canyons in Spain's Eastern waters (see Figure 45). Located in one of the areas with the widest shelf of the mainland, it is part of one of the main rose shrimp (*Parapenaeus longirostris*) fishing areas, and thus is impacted by the damaging effects of shrimp bottom trawling. This area is a proven hake (*Merluccius merluccius*) nursery (see Figure 47), and as such there are probably other associated species (assemblages) in the canyon, which can be therefore regarded as an Essential Fish Habitat (EFH). It is a distribution area for several cetacean species (Odontoceti) and loggerhead turtle (*Caretta caretta*). The deepest area in the canyon, located to the east side (see Figure 46) is a spawning ground for bluefin tuna (*Thunnus thynnus*). It is considered as a sensitive habitat for several elasmobranchs species (*Etmopterus spinax*, *Galeus melastomus* and *Scyliorhinus canicula*) (see Figure 48).

Depth Range	Approx. 0-2500m
Jurisdictional status	Spain Territorial waters
Location (centroid)	Latitud: 37° 57,634' N Longitud: 0° 13,434' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples
<i>Caretta caretta</i>	Odontoceti	Canyons
<i>Etmopterus spinax</i>	<i>Parapenaeus longirostris</i>	Highly migratory fish
<i>Galeus melastomus</i>	<i>Scyliorhinus canicula</i>	Sea turtles
<i>Merluccius merluccius</i> (nursery)	<i>Thunnus thynnus</i>	Sharks
		Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																												
	No information	Low	Medium	High																									
Uniqueness or rarity																													
Special importance for life-history stages of species				X																									
<i>Significant habitat for commercial species European hake (nursery) and Deepwater rose shrimp. Both of them considered as priority species under GFCM⁵</i>																													
Importance for threatened, endangered or declining species and/or habitats				X																									
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																									
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																									
<i>Merluccius merluccius</i>				VU (Med)																									
Odontoceti	Appendix I and II	-	(**)	(**)																									
<i>Thunnus thynnus</i>	-	-	Annex III	EN/EN (Med)																									
Vulnerability, fragility, sensitivity, or slow recovery																													
Biological productivity																													

⁵ List of GFCM Priority Species <http://www.gfcm.org/gfcm/topic/166221/en>

(*) **IUCN Red List categories:** Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

(**) Several of them included

Figure 45. Location of the Alicante canyon

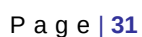
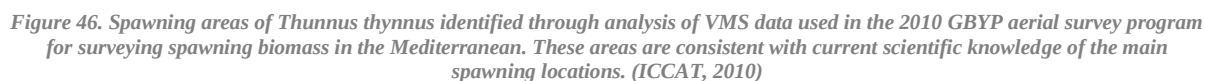
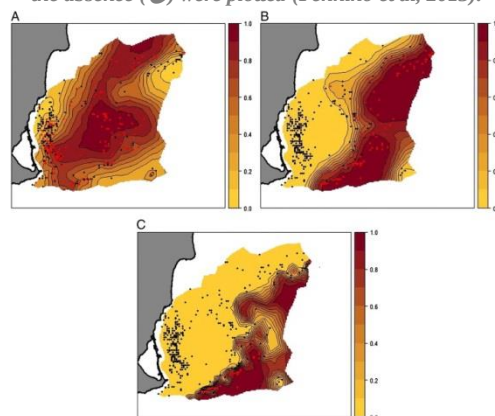


Figure 47. Spatial distribution of hake nurseries in the GSAs 01 (Northern Alboran Sea) and 06 (Northern Spain) (Ardizzone, 2006)



Figure 48. Median of the posterior probability of the presence of the studied elasmobranchs: *S. canicula* (A); *G. melastomus* (B); and *E. spinax* (C). Sampling locations for the presence (●) and the absence (●) were plotted (Pennino et al, 2013).



References

- Ardizzone G.D. (2006). (Inédito). Sensitive and Essential Fish Habitats in the Mediterranean Sea. Working document to the STECF/SGMED-06-01 sub-group meeting on sensitive and essential fish habitats in the Mediterranean; 2006. Rome,17
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- Pennino M.G., Muñoz F., Conesa D., López-Quílez A & J.M. Bellido (2013). Modeling sensitive elasmobranch habitats, *Journal of Sea Research* (in press)

7. STONY SPONGES SEAMOUNT

Description and key species

The Stony Sponge Seamount is an underwater elevation located in the northern sector of the Eivissa Channel. SW-NE oriented, it is a significant area commonly used by cetaceans as migratory route. The seamount rises from 1200m depth in the base to almost 700m below the surface. It is worth highlighting that the only stony sponge (*Leiodermatium lynceus*) aggregation known so far in the Mediterranean (Oceana, data not published) has been found in this area. This is a relevant habitat for different species including several of commercial interest. Dead colonies of *Dendrophyllia cornigera* as well as deep-sea gorgonians gardens of *Muriceides lepida* have been documented in the summit. According to the Spanish reference list of marine habitats, they conform the habitat types “coral framework” and “deep-sea gorgonians gardens” respectively, both of them associated to many different species of fish, and invertebrates, among others. The fishing activity does not suppose a real threat to the marine environment since it is located far away from the coast (almost 30 nautical miles from the nearest point in the Eivissa Island). However, the oil and gas industry must be considered as a real threat, since several exploration projects are likely to be put into operation soon which will affect the entire ecosystem, including the water column and the benthic habitats.

Depth Range	Approx. 700-1200m
Jurisdictional status	Spain Territorial waters
Location (centroid)	39° 21,447'N 00° 51,520'E
MedNet Proposal	NO
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples
<i>Balaenoptera physalus</i> <i>Conger conger</i> <i>Delphinus delphis</i> <i>Desmophyllum dianthus</i> <i>Geryon trispinosus</i> <i>Globicephala melas</i> <i>Grampus griseus</i> <i>Leiodermatium lynceus</i> <i>Meganyctiphanes norvegica</i> <i>Muriceides lepida</i>	<i>Physeter macrocephalus</i> <i>Stenella coeruleoalba</i> <i>Tursiops truncatus</i> <i>Ziphius cavirostris</i> Dead colonies of <i>Dendrophyllia cornigera</i>	Coral, sponge and bryozoan aggregations Seamount Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																											
	No information	Low	Medium	High																																								
Uniqueness or rarity				X																																								
<i>The only one stony sponge aggregation known in the Mediterranean Sea</i>																																												
Special importance for life-history stages of species																																												
Importance for threatened, endangered or declining species and/or habitats				X																																								
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Balaenoptera physalus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>EN/VU (Med)</td></tr> <tr> <td><i>Delphinus delphis</i></td><td>Appendix II</td><td>Appendix I and II</td><td>Annex II</td><td>LC/EN (Med)</td></tr> <tr> <td><i>Dendrophyllia cornigera</i></td><td>Appendix II</td><td></td><td></td><td></td></tr> <tr> <td><i>Desmophyllum dianthus</i></td><td>Appendix II</td><td></td><td></td><td></td></tr> <tr> <td><i>Globicephala melas</i></td><td>Appendix II</td><td></td><td>Annex II</td><td>DD</td></tr> <tr> <td><i>Grampus griseus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>LC</td></tr> <tr> <td><i>Physeter macrocephalus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>VU/EN (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Balaenoptera physalus</i>	Appendix I	Appendix I and II	Annex II	EN/VU (Med)	<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)	<i>Dendrophyllia cornigera</i>	Appendix II				<i>Desmophyllum dianthus</i>	Appendix II				<i>Globicephala melas</i>	Appendix II		Annex II	DD	<i>Grampus griseus</i>	Appendix II	Appendix II	Annex II	LC	<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU/EN (Med)
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<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU/EN (Med)																																								

<i>Stenella coeruleoalba</i>	Appendix II	Appendix II (Med)	Annex II	LC/VU (Med)
<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)
<i>Ziphius cavirostris</i>	Appendix II		Annex II	LC
Vulnerability, fragility, sensitivity, or slow recovery				
<i>Sponge aggregation and coral gardens occurrence</i>				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 49. Location of Stony Sponges Seamount



Figure 50. *Muriceides lepida* garden © OCEANA



Figure 51. Stony sponge aggregation (*Leiodermatium lynceus*) © OCEANA



References

Ministerio de Medio Ambiente(2002). Identificación de las áreas de especial interés para la conservación de los cetáceos en el Mediterráneo español. Volumen I. Resumen. Diciembre 2002. Dirección General de Conservación de la Naturaleza. 119 pp

8. BALEARIC SEAMOUNTS

Description and key species

The seamounts of the Majorca Channel have a high environmental significance due to its particular oceanographic conditions associated with its location and geomorphology (see Figure 52). The area comprises four different seamounts: Emile Baudot, Ses Olives, Ausías March and Bell Guyot. Essential Fish Habitats (bluefin tuna spawning ground), Sensitive Habitats (bamboo coral gardens - *Isidella elongata*), maërl beds, coralligenous, gorgonian gardens (*Muriceides lepida*, *Swiftia palida*, *Eunicella verrucosa*, *Villogorgia brevicoides*, *Viminella flagelum*, *Callogorgia verticilata*) and black corals (*Leiopathes glaberrima*, *Antipathes dichotoma*) have been documented in Oceana expeditions (see from Figure 53 to Figure 58). All of them are especially threatened by fishing activities destroying their habitats. It is particularly under pressure from bottom trawling (see Figure 59) and long-liner fishing fleets. The occurrence of most of these species is often associated with the presence of commercial species (monkfish, hake, Norway lobster, lobster, octopus, red shrimp) calling for adequate management. The proposed area is also visited by pelagic species such as swordfish (*Xiphias gladius*), different dolphin species (*Tursiops truncatus*, *Delphinus delphis*), sperm whale (*Physeter macrocephalus*) or loggerhead turtle (*Caretta caretta*). The proposal also covers a distribution area for small sharks (*Etmopterus spinax*, *Dalatias licha*, *Centroscymnus coelolepis*, *Galeus melastomus*). It is also worth highlighting that Balearic Islands are currently targeted by new oil/gas prospections some of them including seismic airgun testing (see Figure 60).

Depth Range	Approx. 50-700 m	
Jurisdictional status	Spain Territorial waters	
Location (centroid)	Ausías March and Ses Olives Latitude: 38° 52,027' N Longitude: 1° 52,815' E	Emile Baudot Seamount Latitude: 38° 52,027' N Longitude: 1° 52,815' E
MedNet Proposal	YES	
MEOW	Western Mediterranean	

KEY SPECIES		Features to be protected according CBD examples
<i>Aristeus antennatus</i>	<i>Palinurus elephas</i>	Cold seeps (Pockmarks)
<i>Aplysina aerophoba</i>	<i>Paramuricea clavata</i>	Coral, sponge and bryozoan aggregations
<i>Asbestopluma hypogea</i>	<i>Peniagone</i> sp.	Highly migratory fish
<i>Axinella</i> spp.	<i>Petromyzon marinus</i>	Sea turtles
Black corals:	<i>Physeter macrocephalus</i>	Seamount communities
- <i>Leiopathes glaberrima</i>	<i>Polyprion americanus</i>	Sharks
- <i>Antipathes dichotoma</i>	<i>Raja montagui</i>	Whales and other cetaceans
<i>Caretta caretta</i>	<i>Ranella olearium</i>	
<i>Centroscymnus coelolepis</i>	<i>Savalia savaglia</i>	
<i>Charonia lampas</i>	Scleractinia:	
<i>Chimaera monstrosa</i>	- <i>Balanophyllia</i> cf. <i>cellulose</i>	
<i>Dalatias licha</i>	- <i>Caryophyllia cyathus</i>	
<i>Delphinus delphis</i>	- <i>Caryophyllia calveri</i>	
<i>Dendrophyllia cornigera</i>	- <i>Caryophyllia dianthus</i>	
<i>Epinephelus caninus</i>	- <i>Caryophyllia</i> sp.	
<i>Erosaria spurca</i>	<i>Sideractis glacialis</i>	
<i>Etmopterus spinax</i>	<i>Spongia agaricina</i>	
<i>Eunicella verrucosa</i>	<i>Stenella coeruleoalba</i>	
<i>Galeus melastomus</i>	<i>Tethya aurantium</i>	
<i>Gryphus vitreus</i>	<i>Thunnus thynnus</i>	
<i>Isidella elongata</i>	<i>Tonna galea</i>	
<i>Javania caillieti</i>	<i>Tursiops truncatus</i>	
<i>Leptometra phallangium</i>	<i>Xiphias gladius</i>	
<i>Neopycnodonte zibrowii</i>		
<i>Nidalia studeri</i>	Coralligenous and Maërl beds	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																																																																																																																															
	No information	Low	Medium	High																																																																																																																																												
Uniqueness or rarity																																																																																																																																																
Special importance for life-history stages of species																																																																																																																																																
Vulnerable Marine Ecosystems (reef builders and coral gardens) are present in the area. According to the FAO (2009), they are considered sensitive and potentially vulnerable to deep sea fisheries. In areas where they have been designated, or are known or likely occur, states and RFMOs should close areas to deep sea fishing practices.																																																																																																																																																
Importance for threatened, endangered or declining species and/or habitats				X																																																																																																																																												
See Figure 53 to Figure 58																																																																																																																																																
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<i>Xiphias gladius</i>			Annex III	NT (Med)																																																																																																																																												
<i>Isidella elongata</i> constitutes a essential habitat for several commercial species, reason why this facie have almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone <i>et al.</i> 2006)																																																																																																																																																
Vulnerability, fragility, sensitivity, or slow recovery																																																																																																																																																
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See Oceana's report: Marín, P., Aguilar, R., García, S., Pardo, E. 2011. Montañas Submarinas de las Islas Baleares: Canal de Mallorca. Propuesta de protección para Ausías March, emile Baudot y Ses Olives. Oceana. 60 pp																																																																																																																																																

Naturalness				
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(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 52. Balearic seamounts location

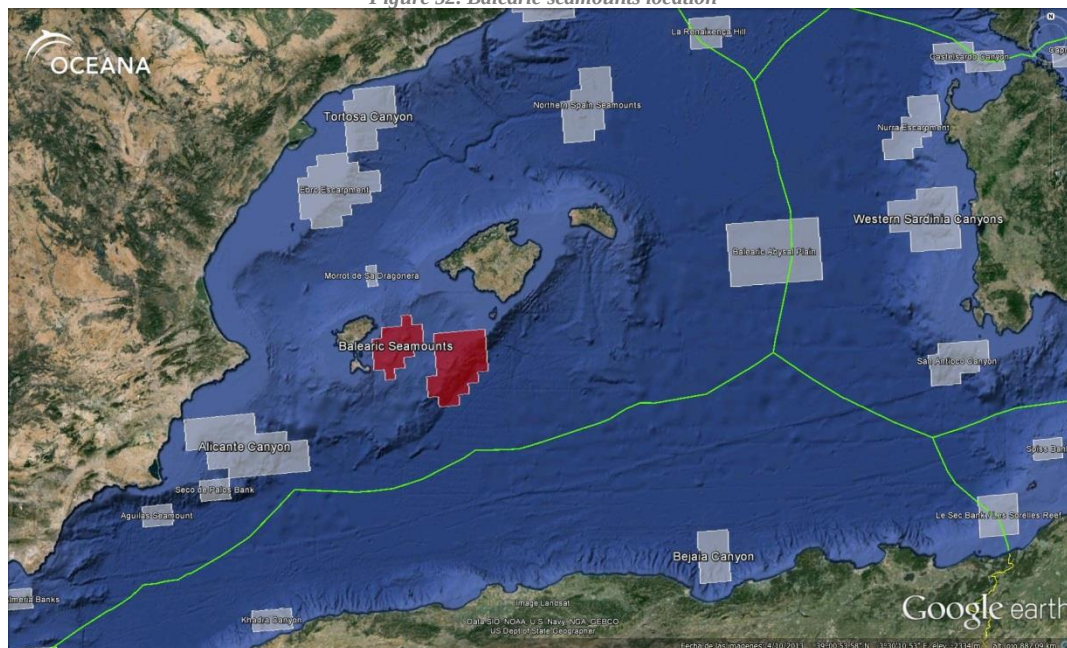


Figure 53. Protected species in Ausias March

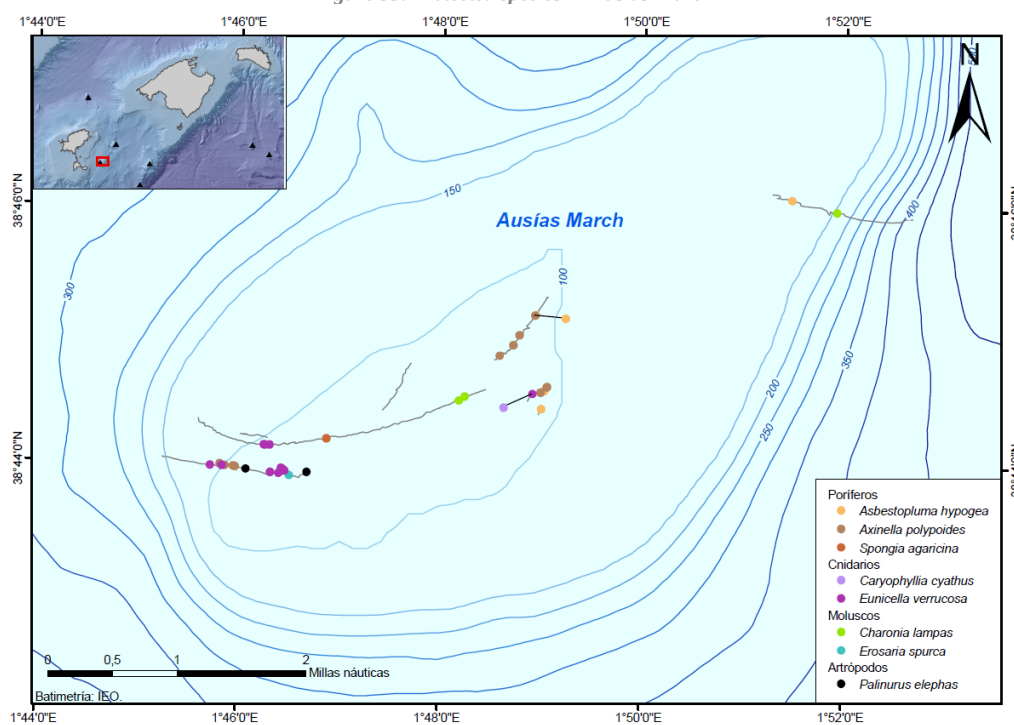


Figure 54. Protected species in Ses Olives

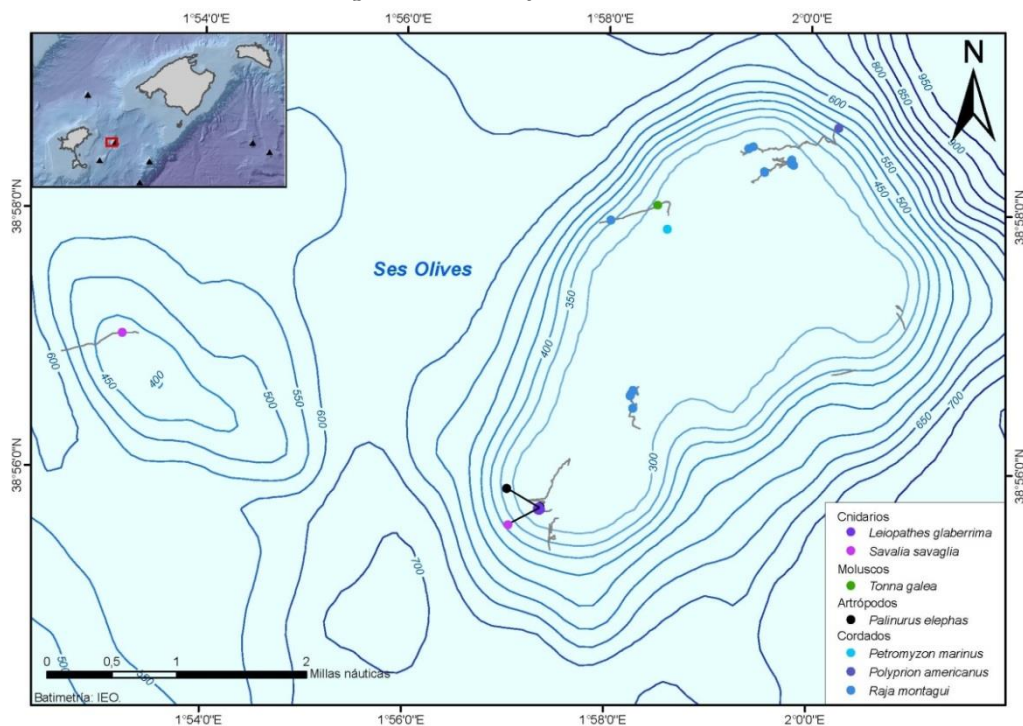


Figure 55. Protected species in Emile Baudot North

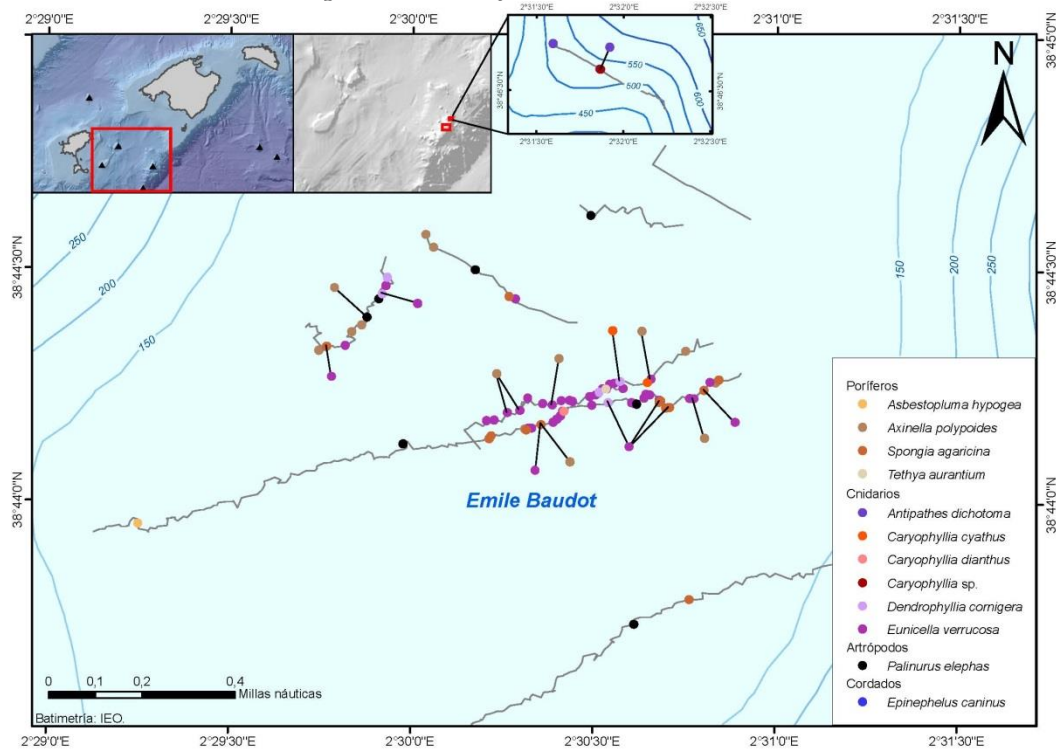


Figure 56. Other species of interest usually conforming assemblages with commercial species

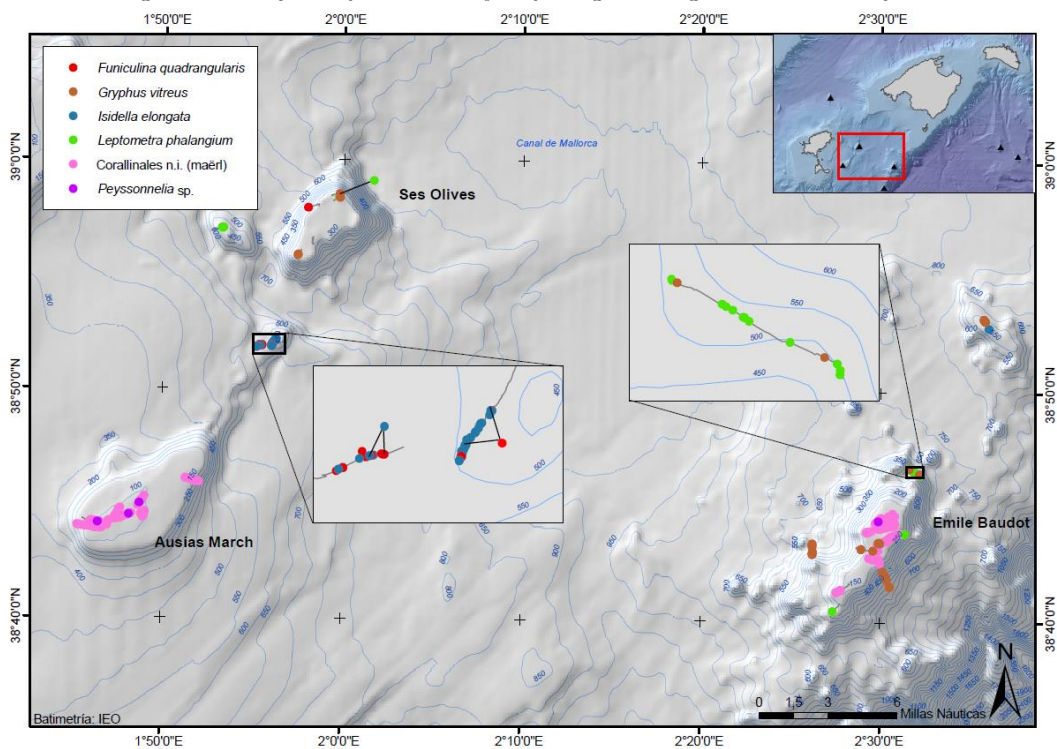


Figure 57. Protected species in Emile Baudot South

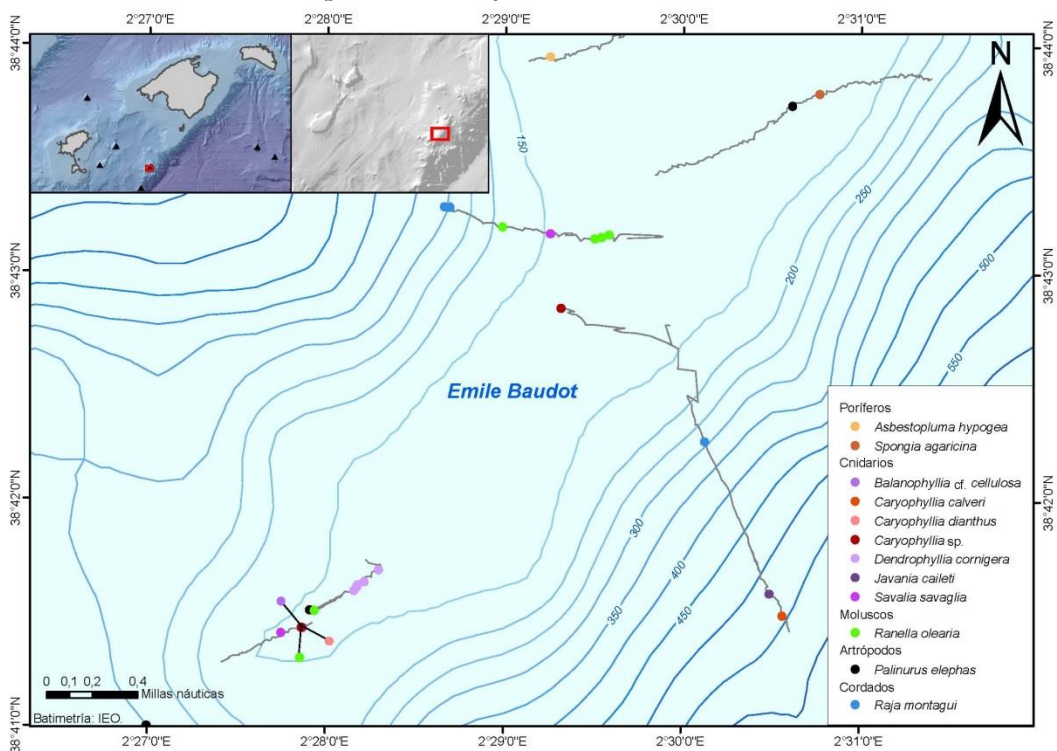


Figure 58. Cetaceans and turtles sightings

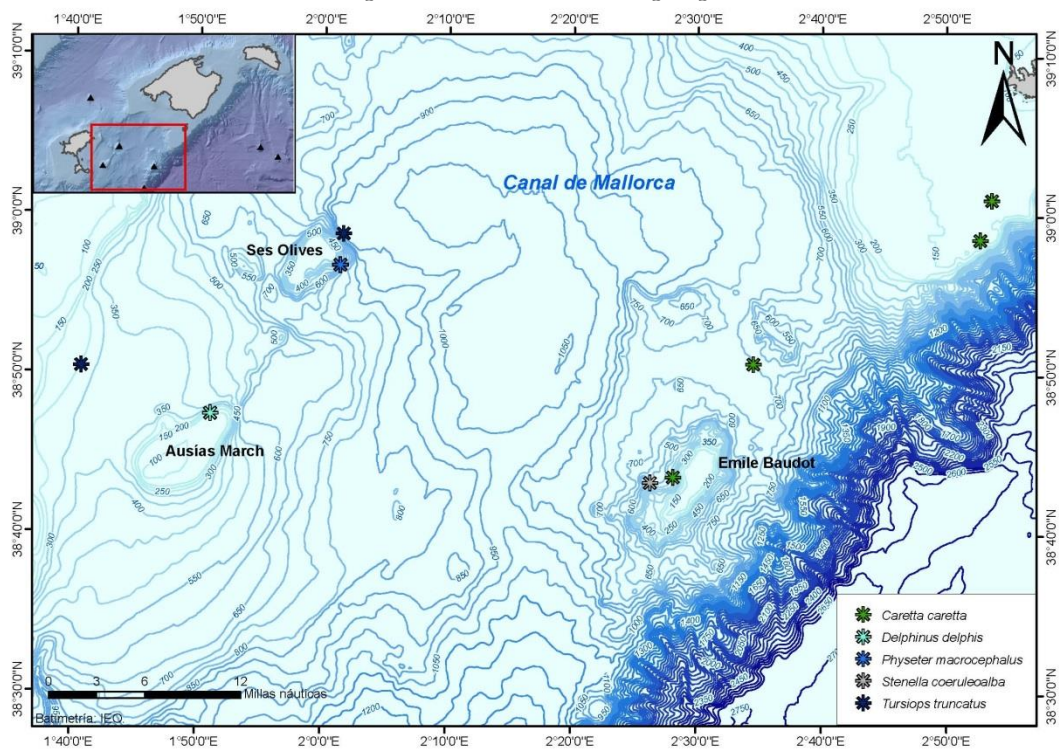


Figure 59. Bottom trawling VMS signals

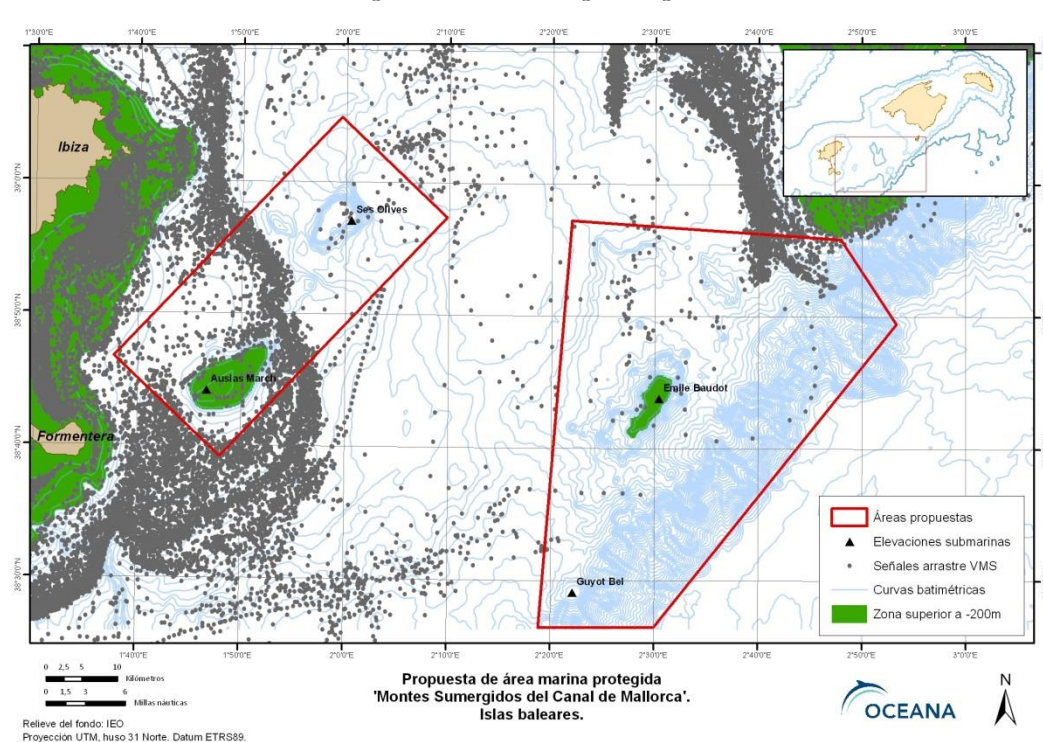
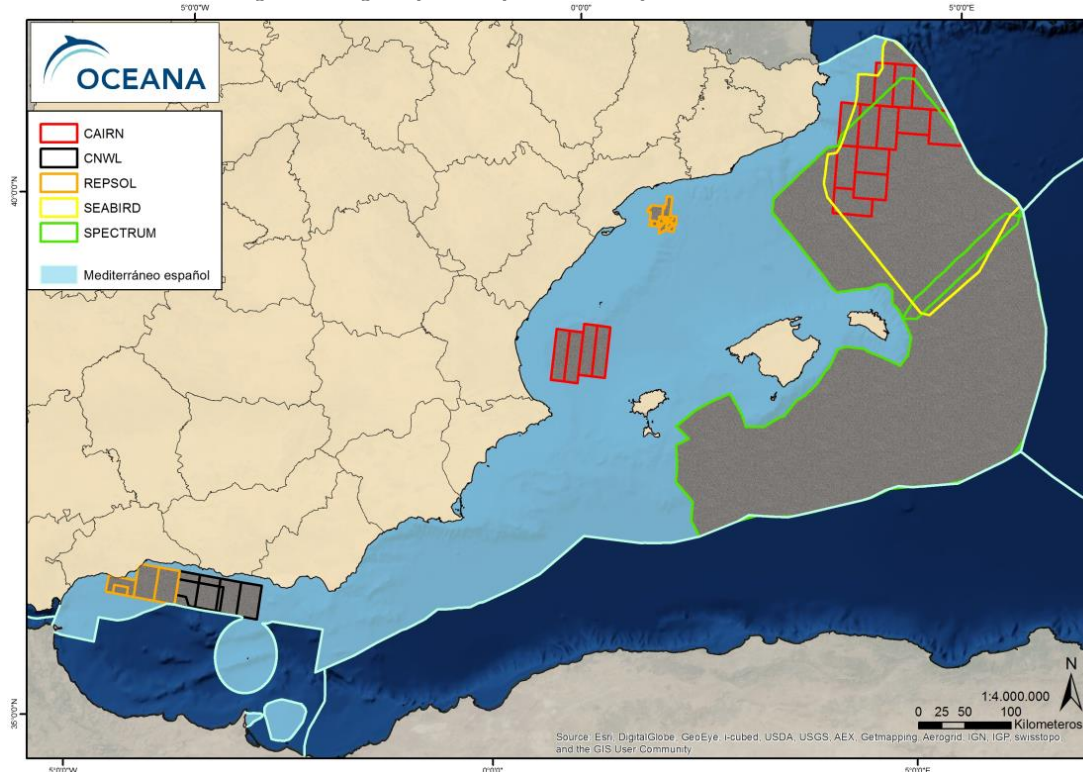


Figure 60. Oil/gas exploration permits in the Spanish Mediterranean Sea



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Further information from Oceana expeditions (images, footage, maps, etc.) is available upon request

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9. EMILE BAUDOT ESCARPMENT

Description and key species

The Emile Baudot Escarpment is located in the SE side of the Balearic Promontory (see Figure 61 and Figure 62). It is one of the most relevant escarpments along the Mediterranean basin with more than 300Km length, SW-NE oriented, and reaching almost 2700m depth in the South East-Algerian Basin (see Figure 63 and Figure 64). The escarpment is used as feeding area by fin whales (*Balaenoptera physalus*), sperm whales (*Physeter macrocephalus*), turtles (*Caretta caretta*), manta rays (*Mobula mobular*) and other large pelagic species as dolphins, bluefin tuna (*Thunnus thynnus*) and swordfish (*Xiphias gladius*). A wide range of deep-sea habitats occur in the area, as bathyal muds with burrowing fauna, coral reefs, crinoids beds (*Leptometra phalangium*, see Figure 69), brachiopods fields (*Gryphus vitreus*), rocky walls with caves, giant oysters reefs, gorgonian gardens, sponges aggregations among others. Several species of commercial interest, such as fish, crustaceans and cephalopods, have been recently described in the area, together with protected species as *Ranella olearium* or *Centrostephanus longispinus* and deep-sea species as boa dragonfish (*Stomias boa*, see Figure 66), Sloane's viperfish (*Chauliodus sloani*, see Figure 65), tripod fish (*Bathypterois dubius*) or gulper shark (*Centrophorus granulosus*) (Oceana, data not published). Located several nautical miles off the coast, the escarpment is far from being safe from human destructive impacts. Big amounts of marine litter such as plastics, lost fishing gears and other debris are found either on the surface or at the sea-bottom (see Figure 73 and Figure 74). Several oil and gas companies are trying to develop exploration projects that threaten marine biodiversity. Maritime traffic can also be considered a threat, since one of the routes of the Mediterranean Sea crosses the escarpment.

Depth Range	Approx. 200 -2600 m
Jurisdictional status	Spain Territorial waters
Location	Latitude: 38° 53.869'N Longitude: 2° 47.023'E
MedNet Proposal	NO
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples
<i>Balaenoptera physalus</i>	<i>Neopycnodonte zibrowii</i>	Coral, sponge and bryozoan aggregations Escarpment Whales and other cetaceans
<i>Bathypterois dubius</i>	<i>Nephrops norvegicus</i>	
<i>Bebryce mollis</i>	<i>Nicella granifera</i>	
<i>Caretta caretta</i>	<i>Pennatula phosphorea</i>	
<i>Caryophylliidae</i>	<i>Physeter macrocephalus</i>	
<i>Centrophorus granulosus</i>	<i>Polyprion americanus</i>	
<i>Centrostephanus longispinus</i>	<i>Ranella olearium</i>	
<i>Dendrophyllia cornigera</i>	<i>Spondylus gussonii</i>	
<i>Epinephelus caninus</i>	<i>Stylocordyla pellita</i>	
<i>Farrea</i> sp.	<i>Thenea muricata</i>	
<i>Funiculina quadrangularis</i>	<i>Thunnus thynnus</i>	
<i>Gryphus vitreus</i>	<i>Trachyrincus scabrus</i>	
<i>Leioderma linceus</i>	<i>Tursiops truncatus</i>	
<i>Lepidion eues</i>	<i>Xiphias gladius</i>	
<i>Leptometra phalangium</i>		
<i>Meganyctiphanes norvegica</i>	Dead colonies of <i>Madrepora</i>	
<i>Mobula mobular</i>	<i>oculata</i> and <i>Lophelia pertusa</i>	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance			
	No information	Low	Medium	High
Uniqueness or rarity			X	
Special importance for life-history stages of species				X
Importance for threatened, endangered or declining species and/or habitats				X

spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)
<i>Balaenoptera physalus</i>	Appendix I	Appendix I and II	Annex II	EN
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN
Caryophylliidae	Appendix II			
<i>Centrophorus granulosus</i>			Annex III	VU/VU (Med)
<i>Centrostephanus longispinus</i>			Annex II	
<i>Dendrophyllia cornigera</i>	Appendix II			
<i>Epinephelus caninus</i>				DD
<i>Mobula mobular</i>			Annex II	EN/EN (Med)
<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU
<i>Polyprior americanus</i>				DD
<i>Ranella olearium</i>			Annex II	Lower Risk/NT
<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)
<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)
<i>Xiphias gladius</i>			Annex III	NT (Med)

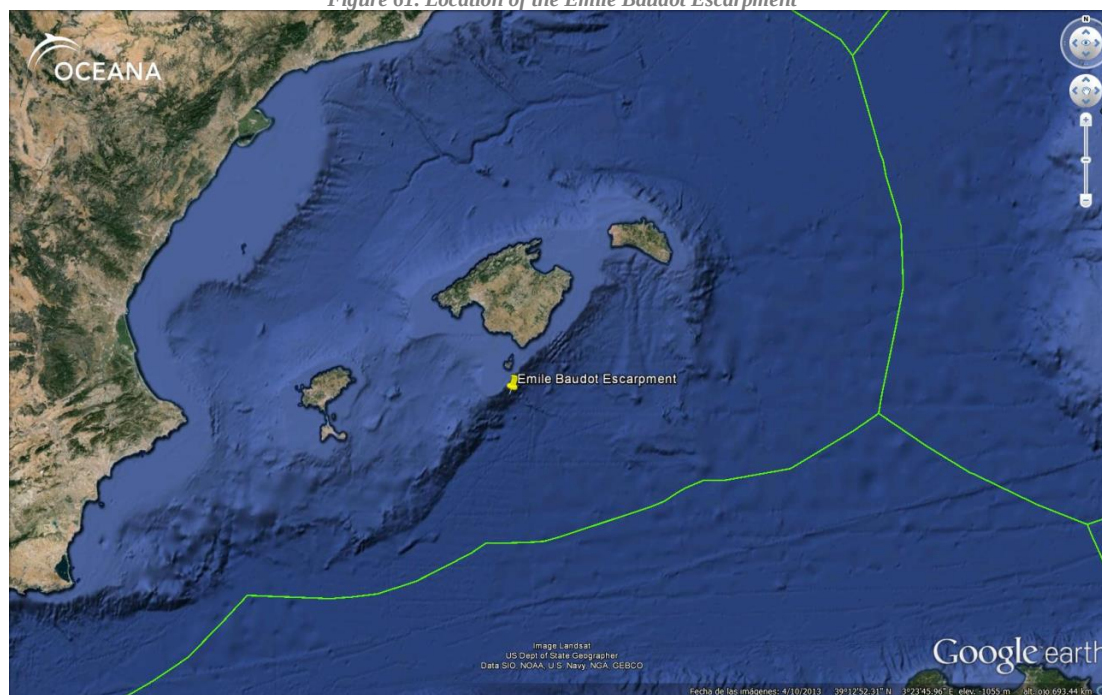
Funiculina quadrangularis constitutes a essential habitat for several commercial species, reason why this facie have almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone *et al.* 2006).

Vulnerability, fragility, sensitivity, or slow recovery				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 61. Location of the Emile Baudot Escarpment



OCEANA

EXPEDITION 2013

EMILE BAUDOT ESCARPMENT

● ROV divers

■ Emile Baudot jr.

■ Guyot Bel

1:1,000,000

0 5 10 20 Nautical Miles

This topographic map displays the study area with elevation contours ranging from 100 to 1500 meters. The map includes latitude and longitude coordinates. Key features labeled include:

- A:** A coastal area with a depth of 2000 meters.
- B:** A mountainous region with a peak elevation of 1500 meters.
- C:** A coastal area with a depth of 2000 meters.
- D:** A coastal area with a depth of 2000 meters.
- E:** A coastal area with a depth of 2000 meters.

The map also shows a scale bar indicating distances up to 10000 meters.

Geological map of the Emile Baudot Embayment, showing various geological features and locations. The map includes labels for Central Depression, Northwest High, Southwest Mallocca High, Southwest Mallocca Apron, Southwest Mallocca Trough, Menorca Fan, Basin Plain, and several locations marked with CP codes (CP54, CP52 C, CP52 B, CP52 A, CP49 A, CP49 B, CP47). It also shows the Emile Baudot Embayment, Emile Baudot Spur, Southwest Mallocca Volcanic Field, and the Base of Emile Baudot Escarpment. A scale bar indicates 0 to 10 Km, and a north arrow is present.

Figure 65. Deep-sea fish (Chauliodus sloani) © OCEANA



Figure 66. Deep-sea fish (Stomias boa) © OCEANA



Figure 67. stony coral colony (*Dendrophyllia cornigera*) © OCEANA



Figure 68. Gorgonian garden (*Nicella granifera*) © OCEANA



Figure 69. Crinoids beds (*Leptometra phallangium*) © OCEANA



Figure 70. Grouper (*Epinephelus caninus*) and sea urchin (*Centrostephanus longispinus*) © OCEANA



Figure 71. Deep-sea cave © OCEANA



Figure 72. Deep-sea fish (*Trachyrincus scabrous*) © OCEANA



Figure 73. Marine litter in the Escarpment © OCEANA



Figure 74. Abandoned gears in the Escarpment © OCEANA



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10. MINORCA CANYON

Description and key species

Located in the Balearic archipelago, it is a canyon with medium activity and a large extension and bathymetric distribution (see Figure 75). It gives rise to a wide range of environments and communities: from coralligenous beds at its head to black coral communities, rocky beds with porifera and cnidarians, shell generating beds, sedimentary and muddy beds etc. The canyon has been included in several oceanographic campaigns, but relevant data has not been published yet. Oceana explored the area and the information gathered is reflected as follows (see from Figure 76 to Figure 79).

Depth Range	Approx. 50-1000m
Jurisdictional status	Spain Territorial waters
Location (centroid)	Latitude: 39°48'59.39"N Longitude: 4° 0'24.21"E
MedNet Proposal	NO
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples ⁶
<i>Antipathes dichotoma</i>	<i>Mesophyllum</i> sp	Coral, sponge and bryozoan aggregations Canyons
<i>Callogorgia verticillata</i>	<i>Palinurus elephas</i>	
<i>Charonia lampas</i>	<i>Paralcyonium spinulosum</i>	
<i>Corallium rubrum</i>	<i>Phakelia ventilabrum</i>	
Corallinacea (maërl and coralligenous)	<i>Peyssonnelia</i> sp	
<i>Dendrophyllia cornigera</i>	<i>Posidonia oceanica</i>	
<i>Eunicella verrucosa</i>	<i>Scyliorhinus canicula</i>	
<i>Funiculina quadrangularis</i>	<i>Spatangus purpureus</i>	
<i>Gryphus vitreus</i>	<i>Tethya aurantium</i>	
<i>Helicolenus dactylopterus</i>	<i>Zeus faber</i>	
<i>Laminaria rodriguezii</i>		
<i>Lithophyllum</i> sp		
<i>Lithothamnion corallioides</i>		
<i>Lophius piscatorius</i>		

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																		
	No information	Low	Medium	High															
Uniqueness or rarity																			
Special importance for life-history stages of species																			
Importance for threatened, endangered or declining species and/or habitats				X															
<table border="1"> <thead> <tr> <th>ESPECIE</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Antipathes dichotoma</i></td><td>Appendix II</td><td></td><td>Annex II</td><td></td></tr> <tr> <td><i>Callogorgia verticillata</i></td><td></td><td></td><td>Annex II</td><td></td></tr> </tbody> </table>					ESPECIE	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Antipathes dichotoma</i>	Appendix II		Annex II		<i>Callogorgia verticillata</i>			Annex II	
ESPECIE	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)															
<i>Antipathes dichotoma</i>	Appendix II		Annex II																
<i>Callogorgia verticillata</i>			Annex II																

⁶ UNEP/CBD/EWS.MPA/1/2. Examples of features that would meet the scientific criteria for identifying ecologically or biologically significant marine areas or species. UNEP/CBD/EWS.MPA/1/2. Appendix to Annex II.

<i>Charonia lampas</i>			Annex II	
<i>Corallium rubrum</i>			Annex III	
<i>Dendrophyllia cornigera</i>	Appendix II			
<i>Eunicella verrucosa</i>				VU
<i>Laminaria rodriguezii</i>			Annex II	
<i>Palinurus elephas</i>			Annex III	
<i>Posidonia oceanica</i>			Annex II	LC
<i>Tethya aurantium</i>			Annex II	

Funiculina quadrangularis constitutes an essential habitat for several commercial species, reason why this facie have almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone *et al.* 2006)

Vulnerability, fragility, sensitivity, or slow recovery				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 75. Location of the Minorca canyon

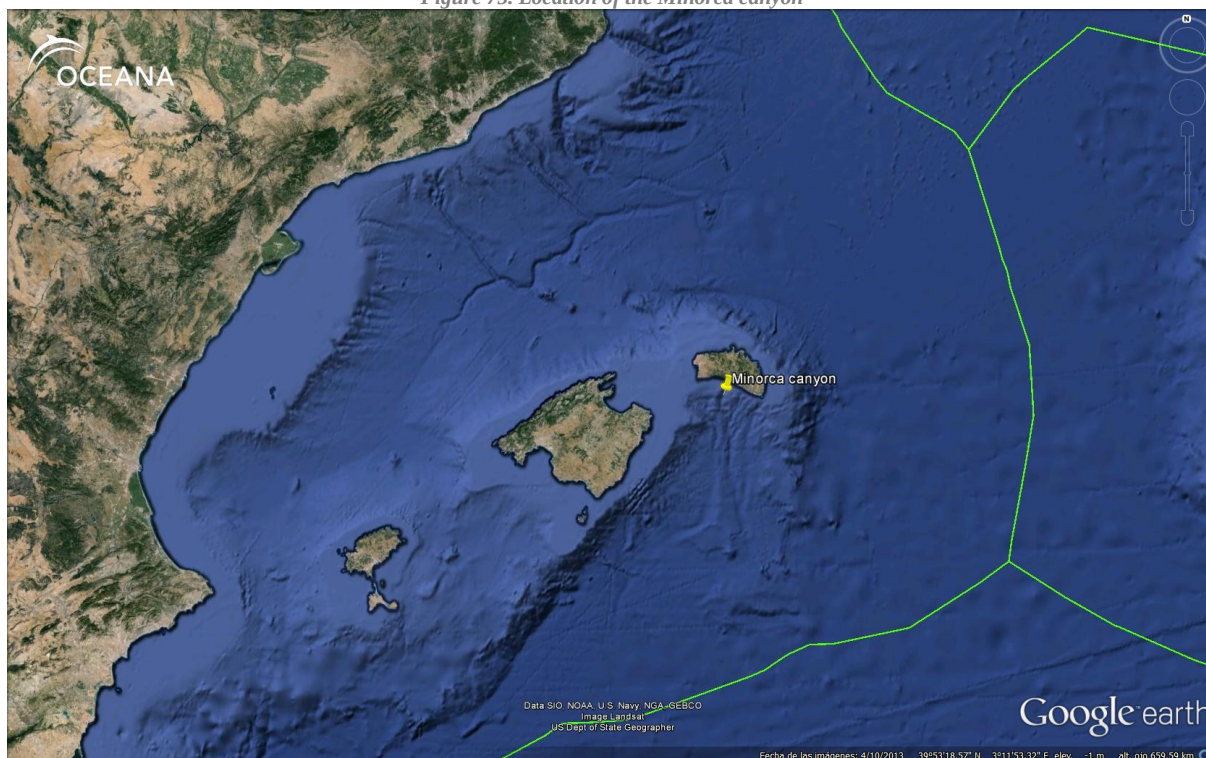


Figure 76. Location of the protected species found in the Minorca canyon

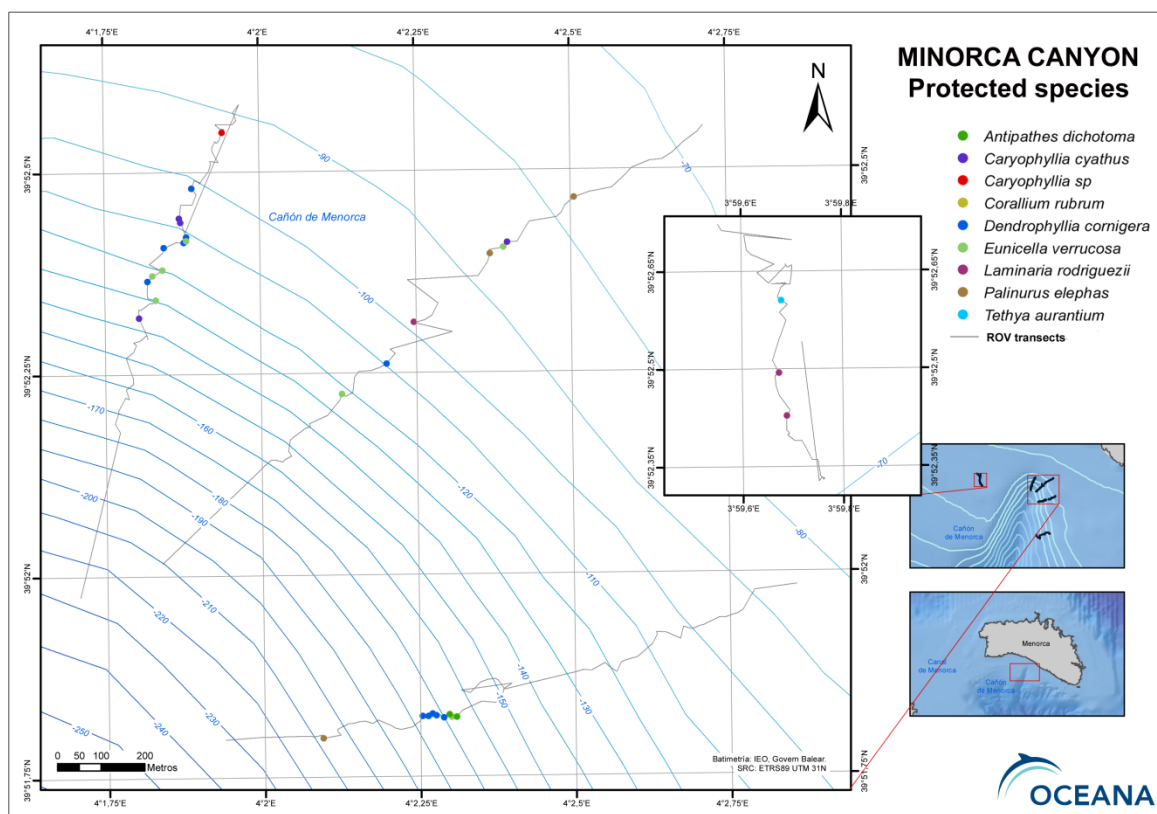


Figure 77. Corals and gorgonians documented in the Minorca canyon. (A) *Dendrophyllia cornigera*; (B) *Funiculina quadrangularis*; (C) *Callogorgia verticillata*; (D) *Eunicella verrucosa* garden; (E) *Antipathes dichotoma*; (F) *Paralcyonium spinulosum*. © OCEANA

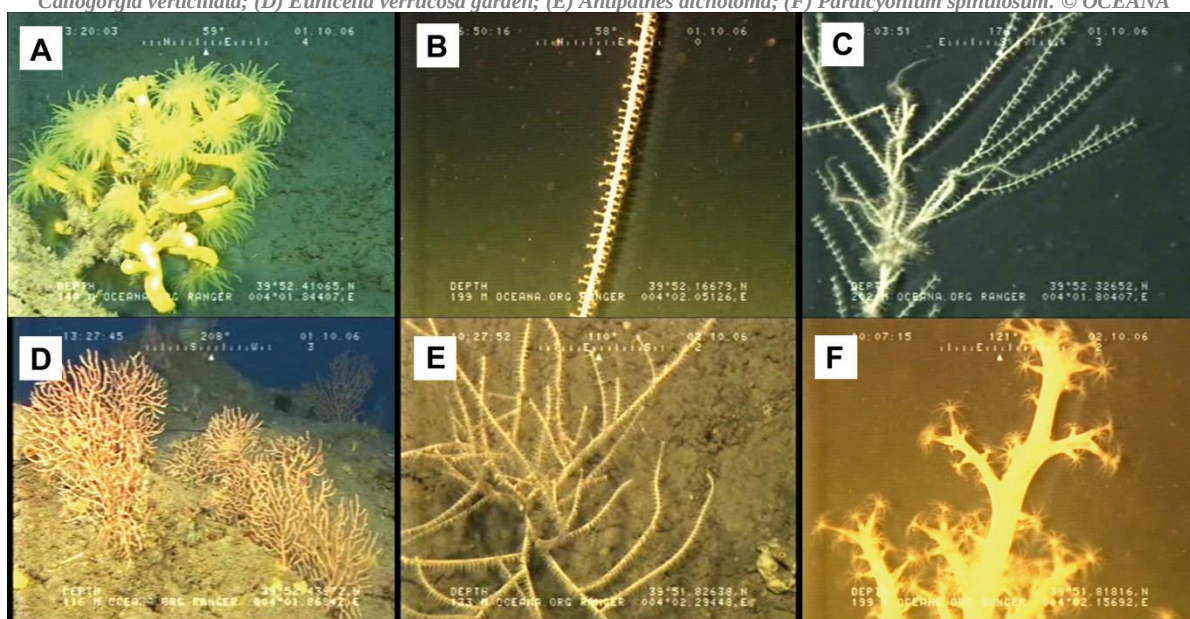


Figure 78. Vertebrates (fish) documented in the Minorca canyon. (A) *Arnoglossus* sp.; (B) *Lophius piscatorius*; (C) *Scorpaena scrofa*; (D) *Pontinus kuhli* © OCEANA

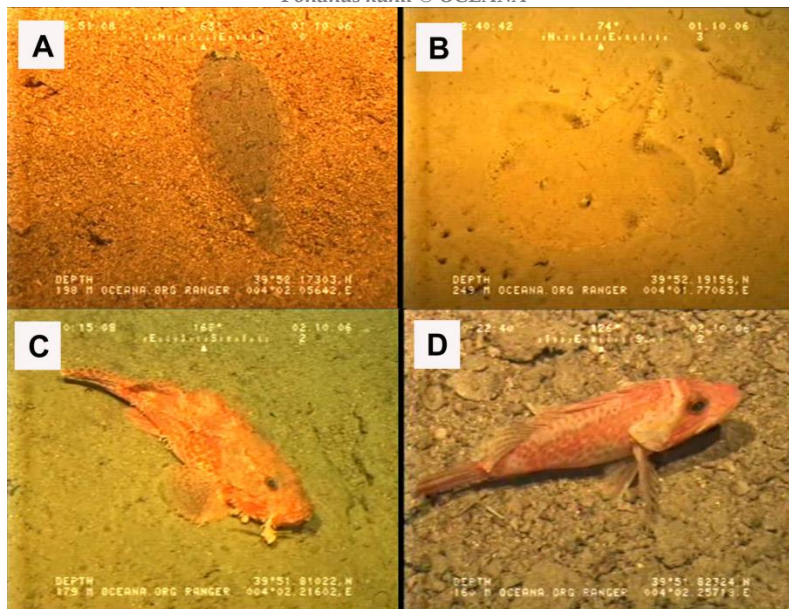
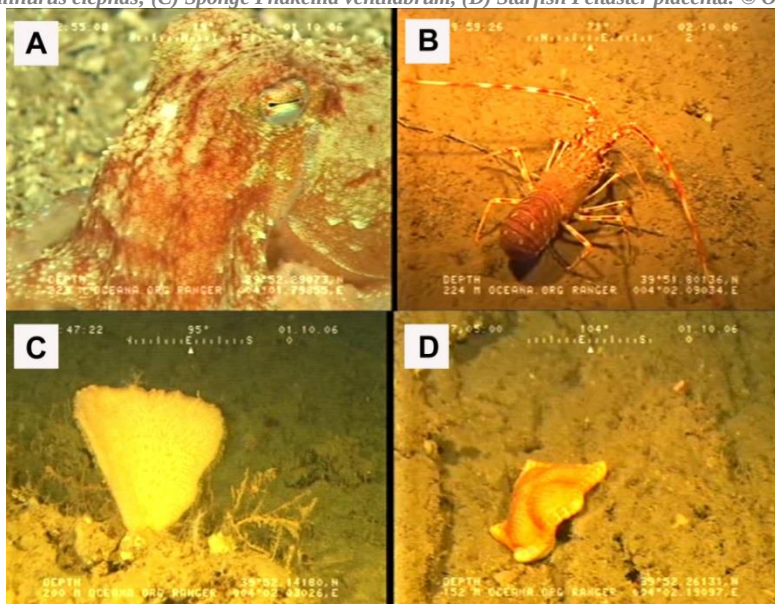


Figure 79. Invertebrates (molluscs, crustaceans, sponges and echinoderms) documented in the Menorca canyon. (A) *Eledone cirrhosa*; (B) *Palinurus elephas*; (C) *Sponge Phakellia ventilabrum*, (D) *Starfish Peltaster placenta*. © OCEANA



References

Further information from Oceana expeditions (images, footage, maps, etc.) is available upon request

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11. TORTOSA CANYON

Description and key species

The Tortosa Canyon is a small-sized canyon that belongs to the canyon system in the continental shelf to the east of the Iberian Peninsula (see Figure 80). The biological information available for this area is relatively scarce although interesting references exist. It may be related to fisheries of red shrimp (*Aristeus antennatus*) in adjoining areas, or to the occurrence of adult hake (*Merluccius merluccius*) by analogy with other canyons in the western Mediterranean. In fact, Sensitive Habitats have been documented within the canyon, such as those constituted by bamboo coral (*Isidella elongata*) which are deep-sea habitats acting as assemblages and associated with commercial species. The area is identified with a large pelagic fishing ground and distribution area for cetacean species (odontocetes) and loggerhead turtle (*Caretta caretta*). It has been also defined as a spawning area for bluefin tuna (*Thunnus thynnus*) with a high relative abundance of basking shark (*Cetorhinus maximus*).

Depth Range	Approx. 100-1000 m
Jurisdictional status	Spain Territorial waters
Location (centroid)	Latitude: 40° 50,751' N Longitude: 1° 30,543' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES	
<i>Aristeus antennatus</i>	<i>Merluccius merluccius</i> (adults)
<i>Caretta caretta</i>	Odontoceti
<i>Cetorhinus maximus</i>	<i>Thunnus thynnus</i>
<i>Delphinus delphis</i>	
<i>Isidella elongata</i>	
<i>Lophius sp</i>	

Features to be protected according CBD examples
Canyons
Highly migratory fish
Sea turtles
Sharks
Whales and other cetaceans

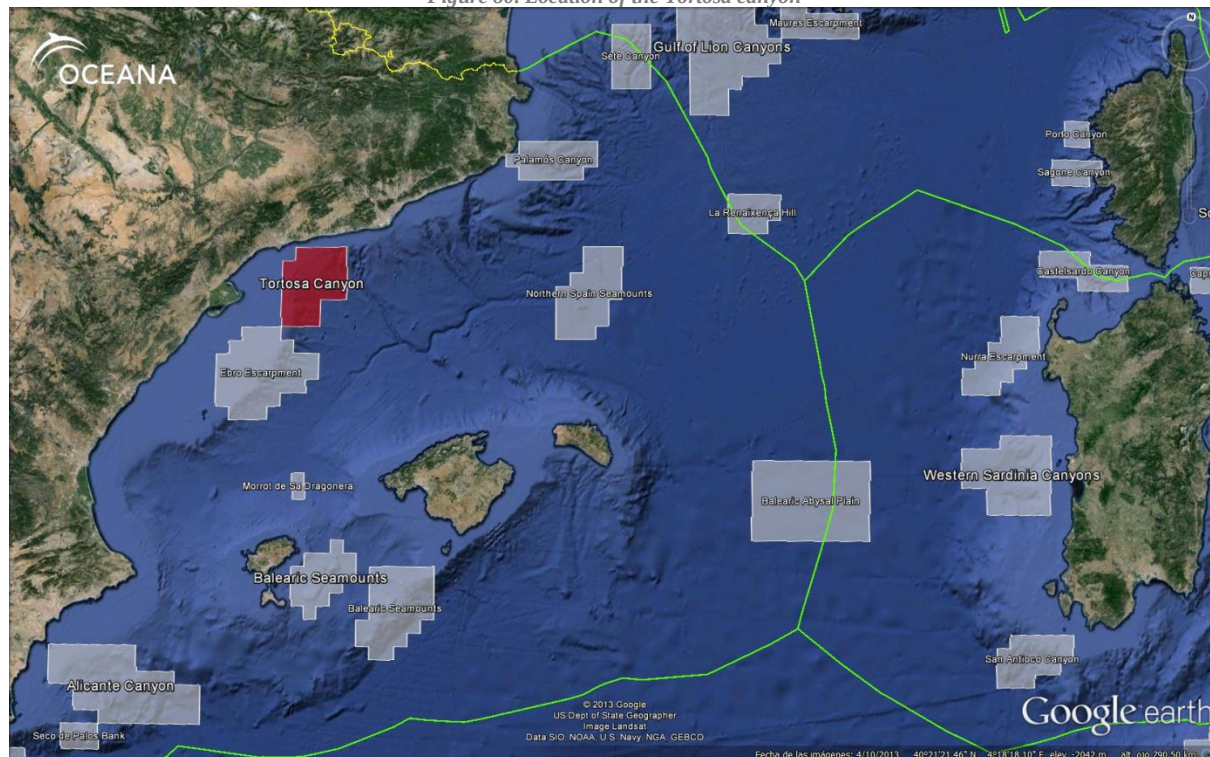
Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																						
	No information	Low	Medium	High																																			
Uniqueness or rarity																																							
Special importance for life-history stages of species																																							
May be related to the spawning area s for hake																																							
Importance for threatened, endangered or declining species and/or habitats				X																																			
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Caretta caretta</i></td><td>Appendix I</td><td>Appendix I</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Cetorhinus maximus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>VU/VU (Med)</td></tr> <tr> <td><i>Delphinus delphis</i></td><td>Appendix II</td><td>Appendix I and II (D. delphis)</td><td>Annex II</td><td></td></tr> <tr> <td><i>Merluccius merluccius</i></td><td></td><td></td><td></td><td>VU (Med)</td></tr> <tr> <td>Odontoceti</td><td>Appendix I/II</td><td></td><td></td><td></td></tr> <tr> <td><i>Thunnus thynnus</i></td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)	<i>Delphinus delphis</i>	Appendix II	Appendix I and II (D. delphis)	Annex II		<i>Merluccius merluccius</i>				VU (Med)	Odontoceti	Appendix I/II				<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																			
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																																			
<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)																																			
<i>Delphinus delphis</i>	Appendix II	Appendix I and II (D. delphis)	Annex II																																				
<i>Merluccius merluccius</i>				VU (Med)																																			
Odontoceti	Appendix I/II																																						
<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)																																			
<i>Isidella elongata</i> constitutes a essential habitat for several commercial species, reason why this facie have almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone <i>et al.</i> 2006)																																							
Vulnerability, fragility, sensitivity, or slow recovery																																							
Biological productivity																																							
Biological diversity																																							
Naturalness																																							

(*) **IUCN Red List categories:** Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 80. Location of the Tortosa canyon



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12. GULF OF LION CANYONS

Description and key species

This proposal comprises the Marseille Canyon, the Grand Rhône Canyon, and the Rhône undersea delta fan (Rhône Fan). It is regarded as a highly significant area for commercial fisheries. These submarine canyons are very productive structures (upwelling areas), and different cetacean species can be found here, such as fin whale (*Balaenoptera physalus*), sperm whale (*Physeter macrocephalus*), striped dolphin (*Stenella coeruleoalba*) and Risso's dolphin (*Grampus griseus*) as well as large filter feeders such as the basking shark (*Cetorhinus maximus*). The canyons hydrodynamic also contributes to the occurrence of deep-sea coral aggregations (*Madrepora oculata*) which are regarded as having an extraordinary environmental significance and which are threatened by bottom trawling, as in the nearby Creus canyon. It is also regarded as a significant area for seabird feeding. Recent results about reasearches carried out in these canyons have provided information on the presence and abundance of vulnerable marine ecosystems, like cold water coral reefs, bamboo coral beds or sea pen and gorgonian communities (Fabri *et al.*, 2013). In the Casidaigne canyon, other significant assemblages and communities can also be added such as deep-sea giant osysters (*Neocyprina zibrowii*), red coral (*Corallium rubrum*), black corals (*Leiopathes glaberrima*, *Antipathes dichotoma*, *Antipathella subpinnata*) and sponge aggregations (*Poecillastra compressa*). An interesting project⁷ showing the major use of canyons and surrounded areas (e.g. Maures escarpment) as habitat for blue shark (*Prionace glauca*) was presented at the last GFCM-SCMEE meeting (Montenegro, February 2014)⁸ (see Figure 82). Blue sharks are one of the most wide-ranging and previously abundant shark species. Now, they are the most heavily fished shark in the world. An estimated 10-20 million individuals are killed by pelagic fisheries annually, mostly as bycatch.

Depth Range	Approx. 100-2000m
Jurisdictional status	France Territorial waters
Location (centroid)	Latitude: 42° 43,127' N Longitude: 5° 3,428' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples
Antipatharia - <i>Antipathes dichotoma</i> - <i>Antipathella subpinnata</i> - <i>Leiopathes glaberrima</i> <i>Balaenoptera physalus</i> Birds <i>Cetorhinus maximus</i> <i>Desmophyllum dianthus</i> <i>Grampus griseus</i>	<i>Madrepora oculata</i> <i>Lophelia pertusa</i> <i>Isidella elongata</i> <i>Funiculina quadrangularis</i> <i>Callogorgia verticillata</i> <i>Physeter macrocephalus</i> <i>Prionace glauca</i> <i>Stenella coeruleoalba</i>	Canyons Coral, sponge and bryozoan aggregations Seabirds Sharks Upwelling areas Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance			
	No information	Low	Medium	High
Uniqueness or rarity				
Special importance for life-history stages of species				
Importance for threatened, endangered or declining species and/or habitats				X

⁷) <http://www.stellaris-asso.org/index.php/fr/suivi-requin>

⁸ See report of the fourteenth session of the GFCM SAC-SCMEE: <https://gfcmsitestorage.blob.core.windows.net/documents/Reports/GFCM-Report-2014-SCMEE-14.pdf>

spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List (*)
<i>Antipathella subpinnata</i>	Appendix II		Annex II	
<i>Antipathes dichotoma</i>	Appendix II		Annex II	
<i>Balaenoptera physalus</i>	Appendix I	Appendix I and II	Annex II	EN/VU (Med)
<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)
<i>Callogorgia verticillata</i>			Annex II	
<i>Corallium rubrum</i>			Annex III	
<i>Desmophyllum dianthus</i>	Appendix II			
<i>Dendrophyllia cornigera</i>	Appendix II			
<i>Grampus griseus</i>	Appendix II	Appendix II	Annex II	LC
<i>Madrepora oculata</i>	Appendix II		Annex II	
<i>Leiopathes glaberrima</i>	Appendix II		Annex II	
<i>Lophelia pertusa</i>	Appendix II		Annex II	
<i>Stenella coeruleoalba</i>	Appendix II	Appendix II (Med)	Annex II	LC/VU (Med)
<i>Oxynotus centrina</i>			Annex II	VU/CR (Med)
<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU/EN (Med)
<i>Prionace glauca</i>			Annex III	NT/VU (Med)

Isidella elongata constitutes a essential habitat for several commercial species, reason why this facies have almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone *et al.* 2006)

Vulnerability, fragility, sensitivity, or slow recovery				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 81. Location of the Gulf of Lion canyons

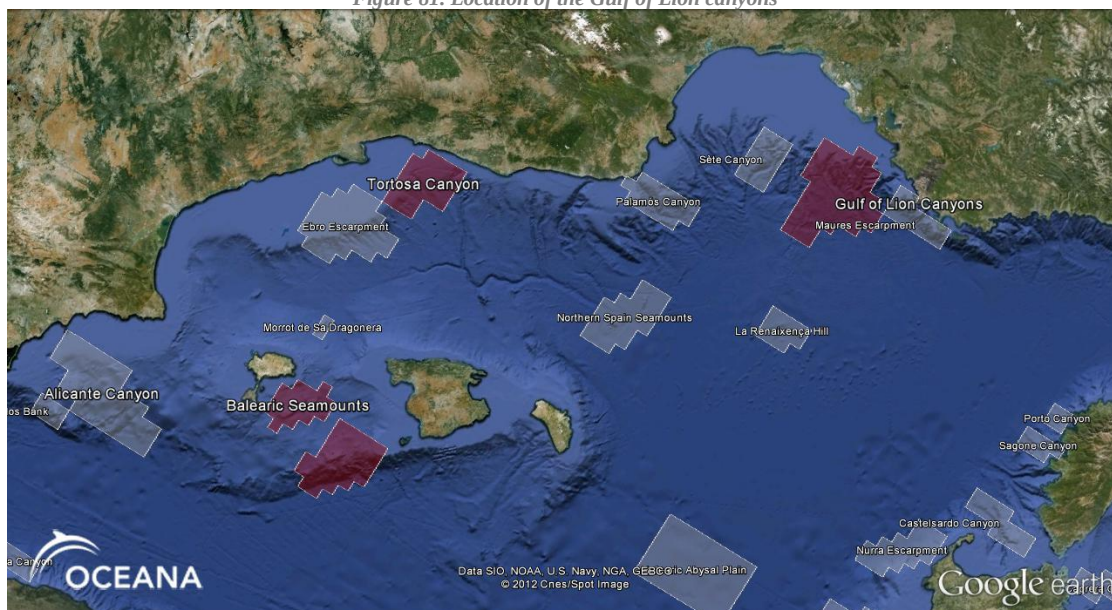


Figure 82. Screen-shot from the Stellaris project

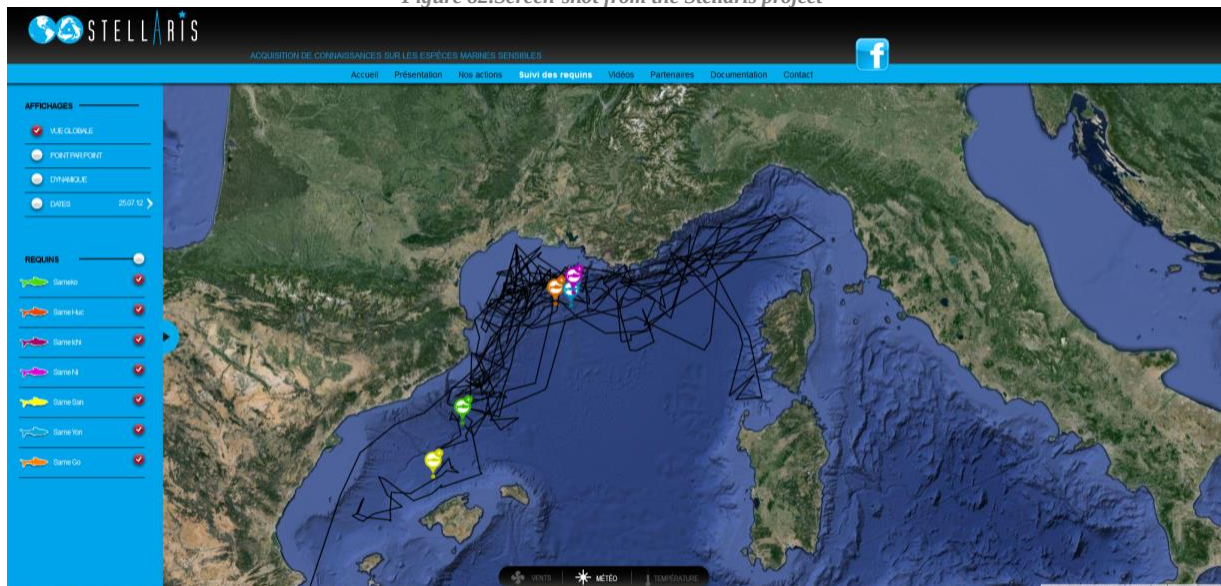
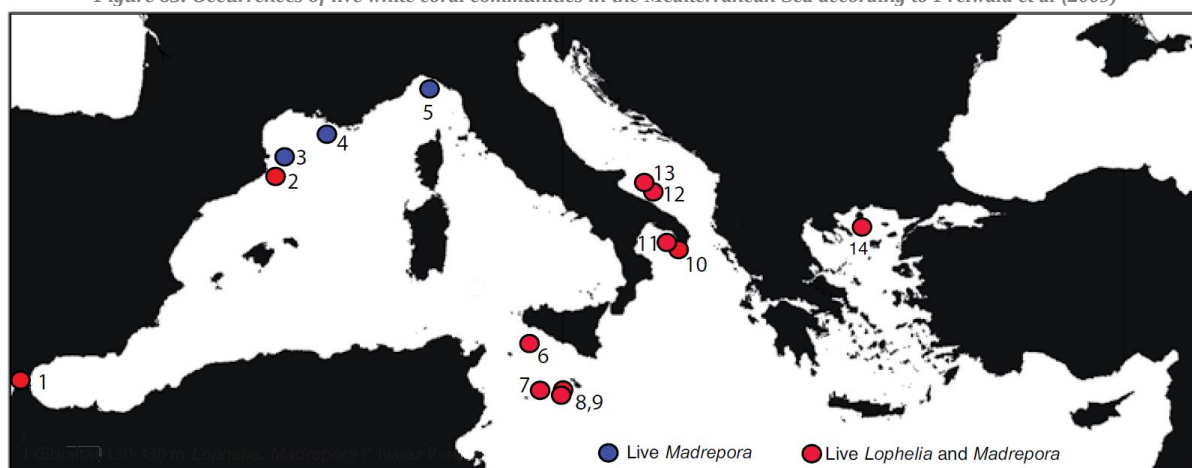


Figure 83. Occurrences of live white coral communities in the Mediterranean Sea according to Freiwald et al (2009)



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13. BEJAIA CANYON

Description and key species

This is one of the main canyons off the Algerian coast (see Figure 84), probably linked with effects on local currents as it coincides with the eddy-formation area in the Algerian current. The biological information in this area is very scarce. However, it was described in the late 70s as a distribution area for monk seal (*Monachus monachus*) one of the most threatened pinnipeds in the planet, which is catalogued as “Critically Endangered” by the IUCN Red List. The Mediterranean monk seal is recognized within the framework of the Barcelona Convention as a species to be protected as a matter of priority. Regarding this, a Regional Strategy for the conservation of Mediterranean Monk Seal (2014-2019) has been adopted within the framework of the last Convention CoP meeting. On the other hand, one of the Proposed Targets within the EcAp process (also adopted during the CoP) is “The distribution of Monk Seal remains stable or expanding and the species is recolonizing areas with suitable habitats”. The Gulf of Bejaia and the head of the canyon is considered as spawning area for small pelagics, like anchovy (*Engraulis encrasicolus*) (Bacha & Amara, 2012; Bacha, 2009). Experimental fisheries for demersal species found important fishing grounds several species (around 20), including fishes, molluscs and crustaceans (Massuti *et al.*, 2004). One of the main threats in this area comes from destructive fishing gears (bottom trawling).

Depth Range	Approx. 300-2500m
Jurisdictional status	Algeria Territorial waters
Location (centroid)	Latitude: 37° 2,590' N Longitude: 5° 21,545' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES
<i>Engraulis encrasicolus</i> <i>Monachus monachus</i>

Features to be protected according CBD examples
Canyons Gyres

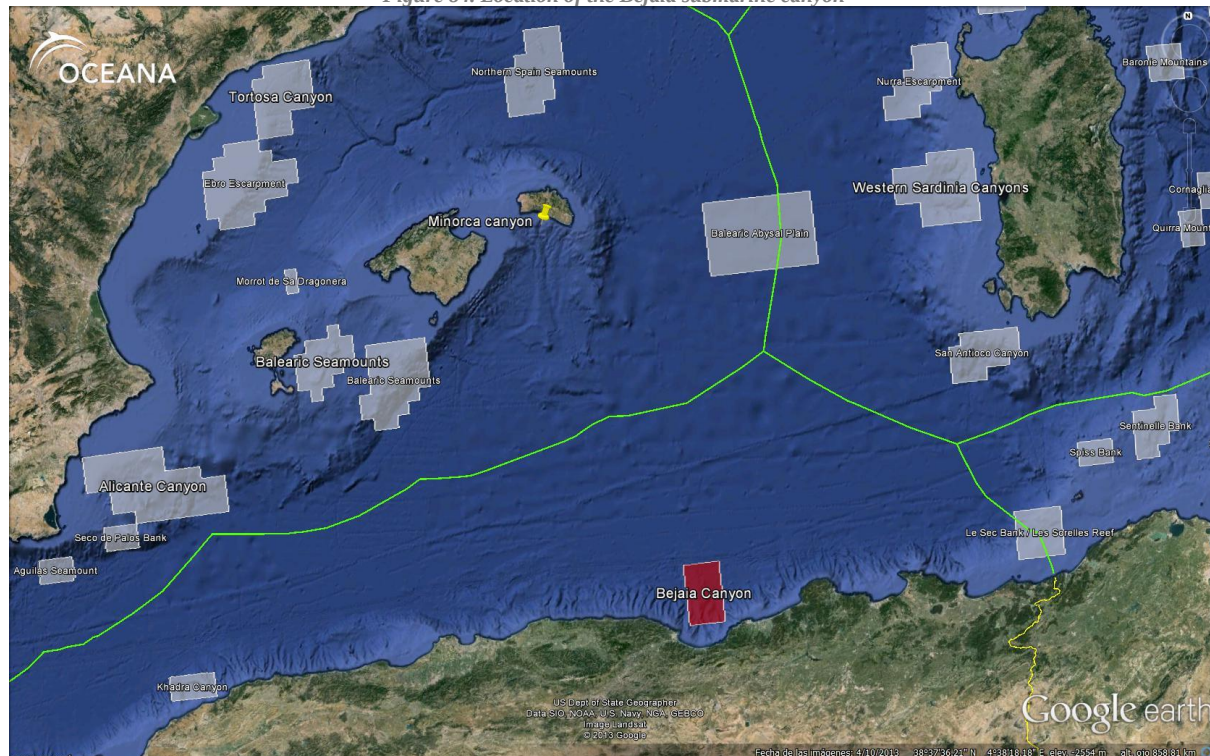
Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance													
	No information	Low	Medium	High										
Uniqueness or rarity														
Special importance for life-history stages of species <i>Consider as spawning area for small pelagics</i>				X										
Importance for threatened, endangered or declining species and/or habitats	X													
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS_BONNconv</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Monachus monachus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>CR</td></tr> </tbody> </table>					spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List (*)	<i>Monachus monachus</i>	Appendix I	Appendix I and II	Annex II	CR
spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List (*)										
<i>Monachus monachus</i>	Appendix I	Appendix I and II	Annex II	CR										
Vulnerability, fragility, sensitivity, or slow recovery														
Biological productivity														
Biological diversity														
Naturalness														

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 84. Location of the Bejaia submarine canyon



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14. WESTERN SARDINIA CANYONS

Description and key species

Il Catalano and Oristano submarine canyons are located off the East coast of Sardinia and they both constitute the largest complex of the canyons system surrounding the island (see Figure 85). They probably affect, together with the Algerian current, eddy formations in the west Mediterranean (see Figure 86). Submarine canyons usually correspond with areas of interest for fisheries, as they are highly productive zones due to their special hydrodynamics. In this case, they are possibly linked with large pelagic fisheries and with the occurrence of cetacean species such as Risso's dolphin (*Grampus griseus*), sperm whale (*Physeter macrocephalus*), fin whale (*Balaenoptera physalus*), and striped dolphin (*Stenella coeruleoalba*), as well as large filter feeders such as basking shark (*Cetorhinus maximus*) and giant devil ray (*Mobula mobular*). The latter one is relatively abundant in this area. Moreover, at the edge of the slope there are areas that are regarded as lobster (*Palinurus elephas*) nurseries. In order to protect stocks, in May 2010 the Autonomous Region of Sardinia established management measures to regulate fishing. It is very significant from a geological point of view as the deepest area, which is part of the sedimentary fan in the continental margin, reflects the effects of the salinity crisis of the Messinian period.

Depth Range	Approx. 100-2500
Jurisdictional status	Italy Territorial waters
Location (centroid)	Latitude: 39° 54,110' N Longitude: 7° 53,367' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES		Features to be protected according CBD examples
<i>Balaenoptera physalus</i>	<i>Mobula mobular</i>	Canyons
<i>Cetorhinus maximus</i>	<i>Palinurus elephas</i>	Gyres
<i>Grampus griseus</i>	<i>Physeter macrocephalus</i>	Sharks
Large pelagics	<i>Stenella coeruleoalba</i>	Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																											
	No information	Low	Medium	High																																								
Uniqueness or rarity																																												
Special importance for life-history stages of species		X																																										
<i>Palinurus elephas</i> nursery in surrounded areas																																												
Importance for threatened, endangered or declining species and/or habitats				X																																								
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS_BONNconv</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Balaenoptera physalus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>EN/VU (Med)</td></tr> <tr> <td><i>Cetorhinus maximus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>VU/VU (Med)</td></tr> <tr> <td><i>Grampus griseus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>LC</td></tr> <tr> <td><i>Mobula mobular</i></td><td></td><td></td><td>Annex II</td><td>EN/EN (Med)</td></tr> <tr> <td><i>Palinurus elephas</i></td><td></td><td></td><td>Annex III</td><td></td></tr> <tr> <td><i>Physeter macrocephalus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>VU EN (Med)</td></tr> <tr> <td><i>Stenella coeruleoalba</i></td><td>Appendix II</td><td>Appendix II (Med)</td><td>Annex II</td><td>LC/VU (Med)</td></tr> </tbody> </table>					spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List (*)	<i>Balaenoptera physalus</i>	Appendix I	Appendix I and II	Annex II	EN/VU (Med)	<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)	<i>Grampus griseus</i>	Appendix II	Appendix II	Annex II	LC	<i>Mobula mobular</i>			Annex II	EN/EN (Med)	<i>Palinurus elephas</i>			Annex III		<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU EN (Med)	<i>Stenella coeruleoalba</i>	Appendix II	Appendix II (Med)	Annex II	LC/VU (Med)
spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List (*)																																								
<i>Balaenoptera physalus</i>	Appendix I	Appendix I and II	Annex II	EN/VU (Med)																																								
<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)																																								
<i>Grampus griseus</i>	Appendix II	Appendix II	Annex II	LC																																								
<i>Mobula mobular</i>			Annex II	EN/EN (Med)																																								
<i>Palinurus elephas</i>			Annex III																																									
<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU EN (Med)																																								
<i>Stenella coeruleoalba</i>	Appendix II	Appendix II (Med)	Annex II	LC/VU (Med)																																								
Vulnerability, fragility, sensitivity, or slow recovery																																												

Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 85. Location of the Western Sardinia canyons

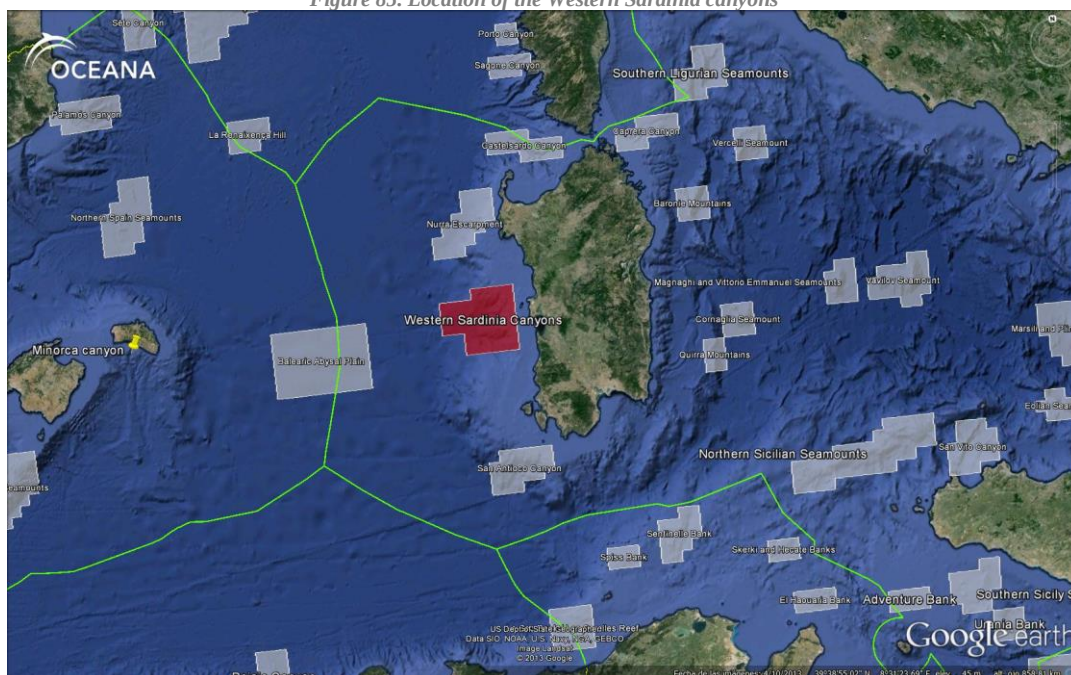
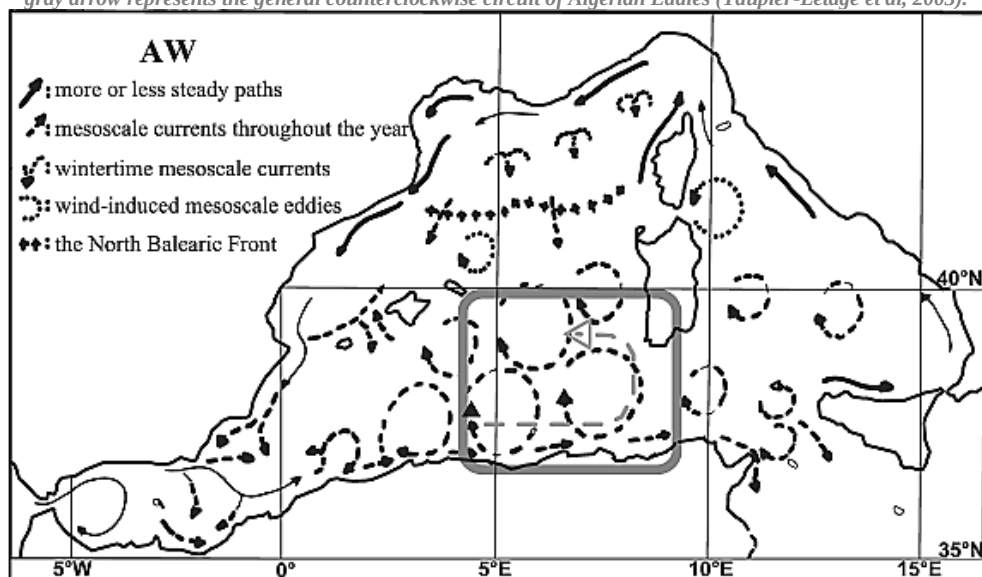


Figure 86. The general circulation of the Atlantic Water (AW) in the western Mediterranean [adapted from Millot, 1999]. The dashed gray arrow represents the general counterclockwise circuit of Algerian Eddies (Taupier-Letage et al, 2003).



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15. SOUTHERN LIGURIAN SEAMOUNTS

Description and key species

This area includes a number of seamounts (Cialdi, Giglio and Jadul) located to the North of the Tyrrhenian Sea and on the edge of the Pelagos sanctuary (see Figure 87). It is a high primary production area which supports many different shark and ray species (*Cetorhinus maximus*, *Carcharhinus brachyurus*, *Scyliorhinus canicula*, *Galeus melastomus*, *Etmopterus spinax*, *Raja clavata*, *Raja asterias*). For most of them, this area functions as well as a nursery and some of them are also included in different threat categories of the IUCN Red List, and thus require adequate management measures to be taken. This zone also contains a relatively high presence of six-gilled shark (*Hexanchus griseus*) and thresher shark (*Alopias* spp). It is also an important feeding ground for seabirds that use the Corsica-Sardinian-Tuscan archipelago as breeding area. Furthermore, in Cialdi seamount was discovered the first submerged micritic limestones with *Acesta excavata* (Lopez-Correa et al., 2005) associated with corals and polychaetes, including live *Vermiliopsis monodiscus* and *Protula* sp.

Depth Range	Approx. 400-1500m
Jurisdictional status	Italy Territorial waters
Location (centroid)	Latitude: 41° 46,003' N Longitude: 10° 32,764' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES	Features to be protected according CBD examples
<i>Birds - breeding</i> <i>Carcharhinus brachyurus</i> <i>Cetorhinus maximus</i> <i>Etmopterus spinax</i> <i>Galeus melastomus</i>	<i>Hexanchus griseus</i> <i>Raja asterias</i> <i>Raja clavata</i> <i>Scyliorhinus canicula</i> Seabirds Seamount communities Sharks Upwelling areas

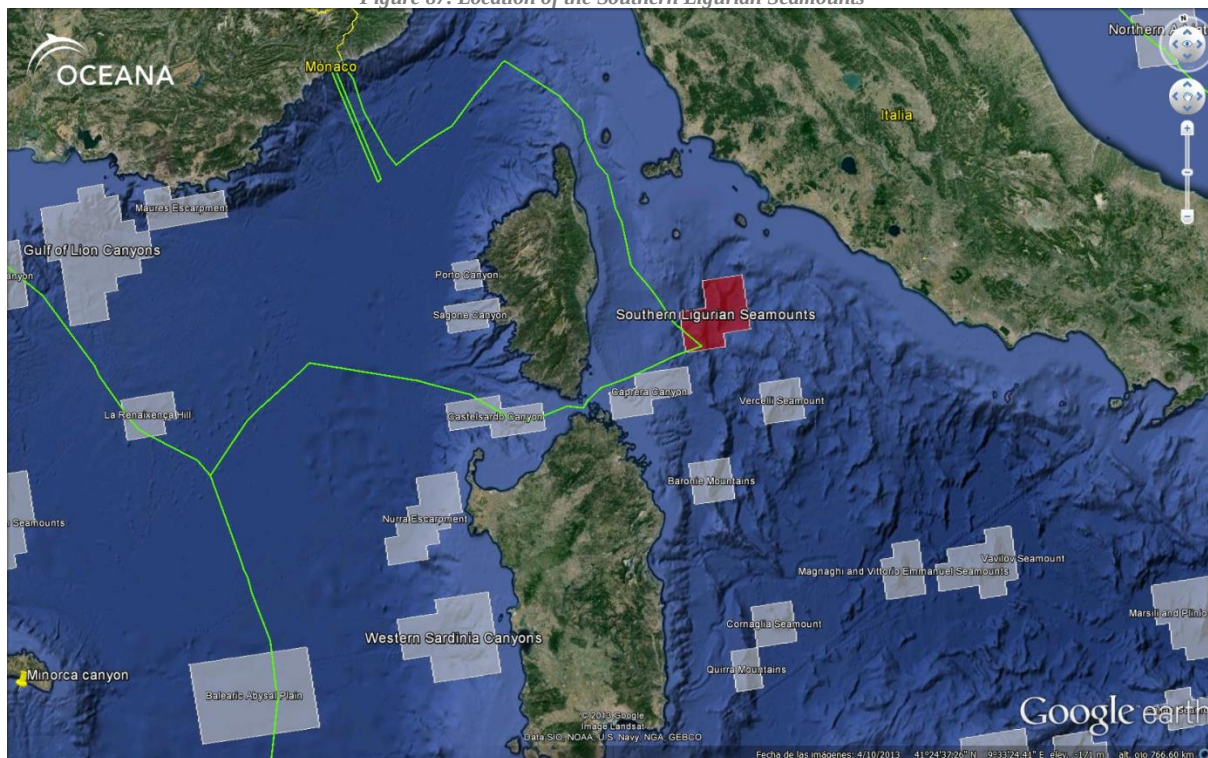
Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																	
	No information	Low	Medium	High																														
Uniqueness or rarity																																		
Special importance for life-history stages of species																																		
Importance for threatened, endangered or declining species and/or habitats				X																														
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Carcharhinus brachyurus</i></td><td></td><td></td><td></td><td>NT</td></tr> <tr> <td><i>Cetorhinus maximus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>VU/VU (Med)</td></tr> <tr> <td><i>Hexanchus griseus</i></td><td></td><td></td><td></td><td>NT/VU (Med)</td></tr> <tr> <td><i>Raja asterias</i></td><td></td><td></td><td></td><td>LC</td></tr> <tr> <td><i>Raja clavata</i></td><td></td><td></td><td></td><td>NT/NT (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Carcharhinus brachyurus</i>				NT	<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)	<i>Hexanchus griseus</i>				NT/VU (Med)	<i>Raja asterias</i>				LC	<i>Raja clavata</i>				NT/NT (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																														
<i>Carcharhinus brachyurus</i>				NT																														
<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)																														
<i>Hexanchus griseus</i>				NT/VU (Med)																														
<i>Raja asterias</i>				LC																														
<i>Raja clavata</i>				NT/NT (Med)																														
Vulnerability, fragility, sensitivity, or slow recovery																																		
Biological productivity																																		
Biological diversity																																		
Naturalness																																		

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 87. Location of the Southern Ligurian Seamounts



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16. NORTHERN SICILIAN SEAMOUNTS

Description and key species

Located off the Northwest coast of Sicily Island, the area comprises a seamount range that rises 1000 meters depth (see Figure 88). It is constituted by Aceste and Drepano seamounts and the Ustica ridge together with its escarpment. The Ustica escarpment and Aceste seamount are significant feeding grounds for seabirds (procellariiforms). Aceste is characterized by the presence of black corals (Antipatharia) and scleractinians (*Dendrophyllia cornigera*) and is an area of high importance for elasmobranchs, especially for sharks, in particular for the great white shark (*Carcharodon carcharias*) which is relatively abundant in this area (see Figure 89), and *Squalus blainvillei* that meet in high numbers on Aceste seamount. The southernmost area is located at the entry of the Sicily strait, an essential migratory pass in the Mediterranean Sea, which is considered as a vulnerable area for pelagic species (see Figure 90). Soft bottoms in these seamounts also host brachiopods beds of *Gryphus vitreus* and Ampeliscidae communities.

Depth Range	Approx. 200-1500m
Jurisdictional status	Italy Territorial waters
Location (centroid)	Latitude: 38° 26,822' N Longitude: 11° 50,666' E
MedNet Proposal	YES
MEOW	Western Mediterranean

KEY SPECIES	Features to be protected according CBD examples
Order Antipatharia Birds - breeding <i>Carcharodon carcharias</i> <i>Dendrophyllia cornigera</i> Elasmobranchii (Class) <i>Gryphus vitreus</i> <i>Bebryce mollis</i> <i>Leptometra phallangium</i>	Coral, sponge and bryozoan aggregations Gyres Seabirds Seamount communities Sharks

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																	
	No information	Low	Medium	High																														
Uniqueness or rarity																																		
Great white shark habitat																																		
Special importance for life-history stages of species																																		
Importance for threatened, endangered or declining species and/or habitats				X																														
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td>Antipatharia</td><td>Appendix II</td><td></td><td>Annex II</td><td></td></tr> <tr> <td><i>Carcharodon carcharias</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>VU/EN (Med)</td></tr> <tr> <td><i>Dendrophyllia cornigera</i></td><td>Appendix II</td><td></td><td></td><td></td></tr> <tr> <td><i>Leiopathes glaberrima</i></td><td>Appendix II</td><td></td><td>Annex II</td><td></td></tr> <tr> <td><i>Antipathes dichotoma</i></td><td>Appendix II</td><td></td><td>Annex II</td><td></td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	Antipatharia	Appendix II		Annex II		<i>Carcharodon carcharias</i>	Appendix II	Appendix II	Annex II	VU/EN (Med)	<i>Dendrophyllia cornigera</i>	Appendix II				<i>Leiopathes glaberrima</i>	Appendix II		Annex II		<i>Antipathes dichotoma</i>	Appendix II		Annex II	
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																														
Antipatharia	Appendix II		Annex II																															
<i>Carcharodon carcharias</i>	Appendix II	Appendix II	Annex II	VU/EN (Med)																														
<i>Dendrophyllia cornigera</i>	Appendix II																																	
<i>Leiopathes glaberrima</i>	Appendix II		Annex II																															
<i>Antipathes dichotoma</i>	Appendix II		Annex II																															
Vulnerability, fragility, sensitivity, or slow recovery																																		
Occurrence of black corals and vulnerable from the fishing point of view																																		
Biological productivity																																		
Due to its geographical location at the entry of the Sicily strait																																		
Biological diversity																																		

Naturalness				
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(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 88. Location of the Northern Sicilian Seamounts



Figure 89. Geographical distribution of the great white sharks *Carcharodon carcharias* recorded in the Medlem database (Baino et al, 2010)

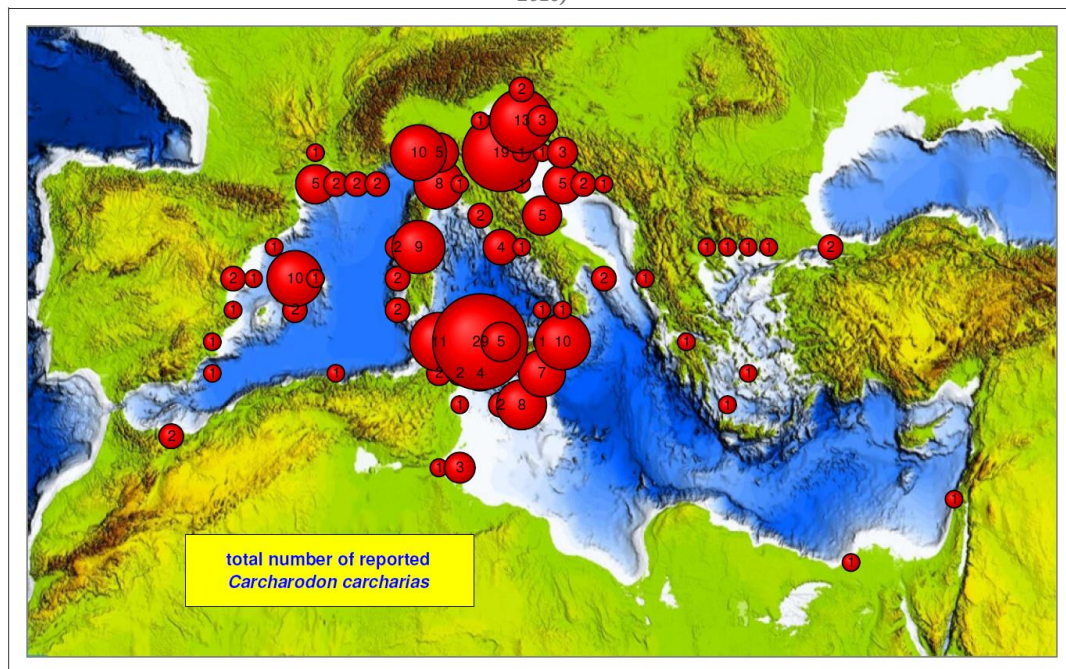


Figure 90. Vulnerable sites in the Mediterranean high seas indicating fishing activities known to occur in the area and potential impacts caused by fishing (De Juan and Leonart, 2010)

Site	Fishing	Impact
Adventure and Malta banks	140 Trawlers from Sicily	Habitat degradation. Overexploitation of juveniles
Samothraki Plateau/Strymonikos gulf	20 Artisanal Greek trawlers and 30 industrial trawlers from other countries	Habitat degradation. Overexploitation of juveniles
Gulf of Lions slope	250 Spanish and French trawlers and gillnets	Habitat degradation. Catch of large females
Jabuka Pit	Trawling	Habitat degradation. Overexploitation of juveniles
Santa Maria di Leuca	Trawling and gillnets from Gallipoli	Habitat degradation
Nile Cold Seeps	—	Prevent future impacts
Erathostenes seamount	—	Prevent future impacts
Alboran Sea seamounts	Spanish trawlers	Habitat degradation
South of Balearic Islands	Pelagic fisheries	Fishing for tuna. Cetaceans' by-catch
North of Levantine sea	Pelagic fisheries	Fishing for tuna
Strait of Gibraltar and Alboran Sea	Pelagic long-lines, driftnets	High by-catch
Strait of Sicily	Pelagic fisheries	Fishing for tuna. High by-catch

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17. ADVENTURE BANK, SOUTHERN SICILY SEAMOUNTS AND URANIA BANK

Description and key species

Located in the strait of Sicily, between the Pantelleria Island and the Sicilian coast, it comprises 3 areas of the initial Oceana MedNet proposal (see Figure 91). They are most likely part of a system interconnected by the influence of currents, particularly the Adventure Bank Vortex (ABV). The sites included are: the Adventure Bank, the Southern Sicily Seamounts (Empedocles, Terrible Bank, the Ferdinanda and Graham Island volcanoes, Nerita Patch and the Pantelleria Shoal) and the Urania Bank. These waters are particularly important for small pelagic fisheries, although large migratory fish such as bluefin tuna (*Thunnus thynnus*) are also caught there. Various shark species such as blue sharks (*Prionace glauca*), sixgill sharks (*Hexanchus griseus*), longnose spurdog (*Squalus blainvillei*) and white sharks (*Carcharodon carcharias*) are also present, the latter being relatively abundant in the area (see Figure 92). Even the endemic and critically endangered *Leucoraja melitensis* occurs here (Serena *et al.*, 2011). The loggerhead turtle (*Caretta caretta*) is another key species which can be found here. The site is also considered as an important feeding area for seabirds (Procellariiforms). From the geological point of view, the magmatic activity due to the presence of the Ferdinanda and Graham Island undersea volcanoes is a significant aspect. Ferdinanda rises from a depth of 400 m to a height of 8 m above sea level, and was formed at the collision point of the African and European tectonic plates. Underwater volcanoes can be biodiversity hotspots as they bring up nutrients from the sea bed fostering abundance and diversity of life. In this case even colonies of cold water corals such as *Madrepora oculata* or *Lophelia pertusa* are supported. This volcanic area is also regarded as a nursery (see Figure 93 and Figure 94) for hake (*Merluccius merluccius*) one of the main commercially fished species in the Mediterranean, and is as well regarded as a priority within the GFCM framework. Essential Fish Habitats for hake (*Merluccius merluccius*), greater fork beard (*Phycis blennoides*), red mullet (*Mullus barbatus*), horned octopus (*Eledone cirrhosa*), Norway lobster (*Nephrops norvegicus*) and pink shrimp (*Parapenaeus longirostris*) have been found on Adventure bank (Garofalo *et al.*, 2011; CIESM, 2011). Benthic ecosystems have a wide variety of habitats, from the bamboo corals (*Isidella elongata*) on muddy beds to coralligenous in the shallowest areas of the Adventure bank (Garofalo *et al.*, 2002; Pipitone & Tumbiolo, 1993; Colantoni *et al.*, 1985). Urania bank has also rocky outcrops with the presence of carnivorous sponges (*Asbestopluma hypogea*) (Aguilar *et al.*, 2011). The main threat is the fishing pressure.

Depth Range	Approx. 0-400m		
Jurisdictional status	Italy Territorial waters		
Location (centroid)	Adventure Bank Latitude: 37° 10,749' N Longitude: 12° 6,687' E	Southern Sicily Seamounts Latitude: 37° 12,034' N Longitude: 12° 50,681' E	Urania Bank Latitude: 36° 49,906' N Longitude: 13° 9,460' E
MedNet Proposal	YES		
MEOW	Ionian Sea		

KEY SPECIES		Features to be protected according CBD examples
<i>Asbestopluma hypogea</i>	<i>Lophelia pertusa</i>	Cold water coral reefs Gyres Highly migratory fish Sea turtles Seabirds Seamount communities Sharks
Birds	<i>Madrepora oculata</i>	
<i>Carcharodon carcharias</i>	<i>Merluccius merluccius</i> (nursery)	
<i>Caretta caretta</i>	<i>Mullus barbatus</i> (spawning)	
<i>Centrophorus granulosus</i>	<i>Nephrops norvegicus</i> (nursery)	
<i>Eledone cirrhosa</i> (adults)	<i>Parapenaeus longirostris</i>	
<i>Eledone cirrhosa</i> (nursery)	<i>Phycis blennoides</i> (nursery)	
<i>Hexanchus griseus</i>	<i>Prionace glauca</i>	
<i>Illex coindetii</i> (nursery)	Small Pelagics - habitat	
<i>Isidella elongata</i>	<i>Squalus blainville</i>	
<i>Leucoraja melitensis</i>	<i>Thunnus thynnus</i>	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance			
	No information	Low	Medium	High
Uniqueness or rarity			X	
<i>Volcanos presence</i>				

Special importance for life-history stages of species				X																																																												
<i>Nursery and spawning ground for certain commercial species</i>																																																																
Importance for threatened, endangered or declining species and/or habitats				X																																																												
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<i>Isidella elongata</i> constitutes a essential habitat for several commercial species, reason why this facie have almost completely disappeared due to trawl fishing in many Mediterranean areas (Ardizzone <i>et al</i> , 2006)																																																																
Vulnerability, fragility, sensitivity, or slow recovery				X																																																												
<i>Presence of Vulnerable Marine Ecosystems (cold water corals) likely supporting commercial species populations</i>																																																																
Biological productivity																																																																
Biological diversity				X																																																												
Naturalness																																																																

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 91. Location of Adventure Bank, Southern Sicily Seamounts and Urania Bank

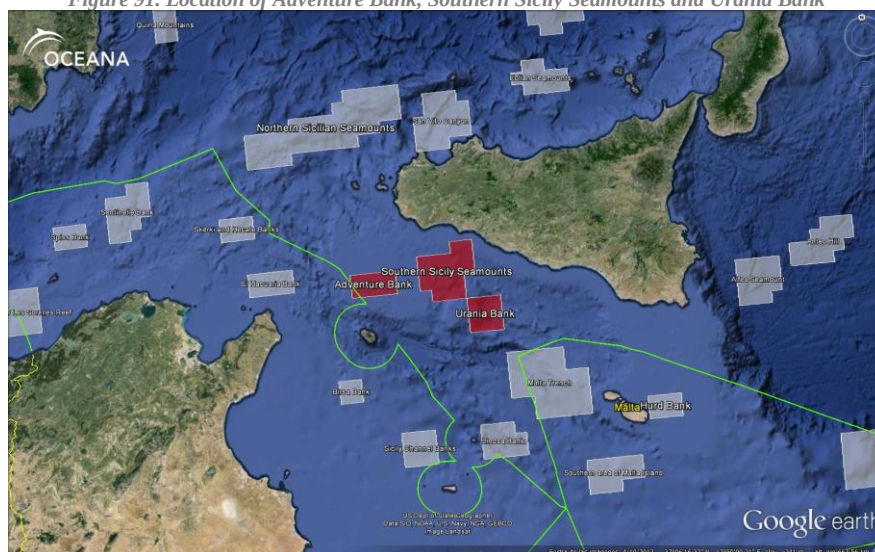


Figure 92. Spatial distribution of *Chimaera monstrosa*, *Squalus blainville*, *Centrophorus granulosus* and *Etmopterus spinax* in South Sicily (SS, yellow), Malta Island (MI, light red) and Intermediate Zone (BZ, cyan) (Ragonese et al, 2013)

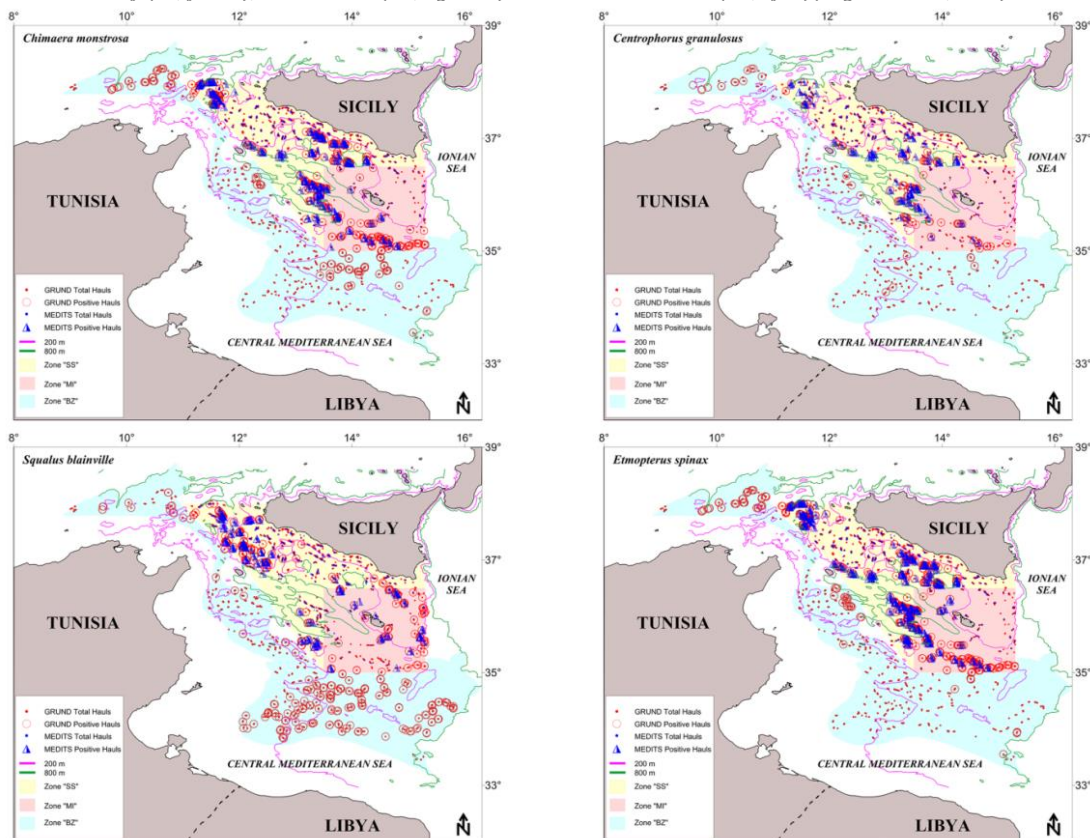


Figure 93. Mean density indices of young of the year of hake in MEDITS surveys 2002, 2003 and 2004 (late spring -early summer). Highest concentrations were found in the eastern side of Adventure and Malta Banks (Ardizzone et al, 2006).

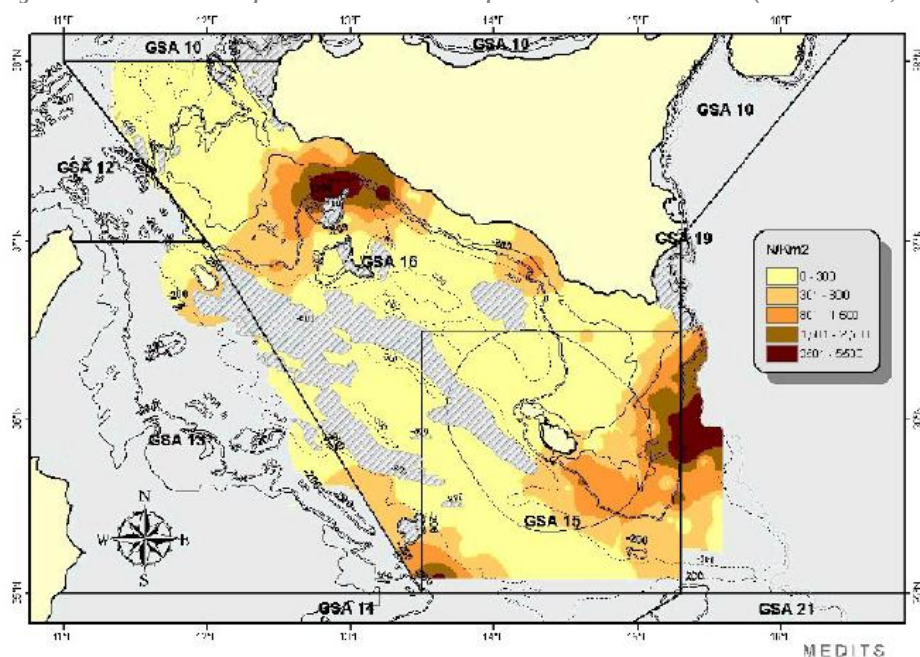
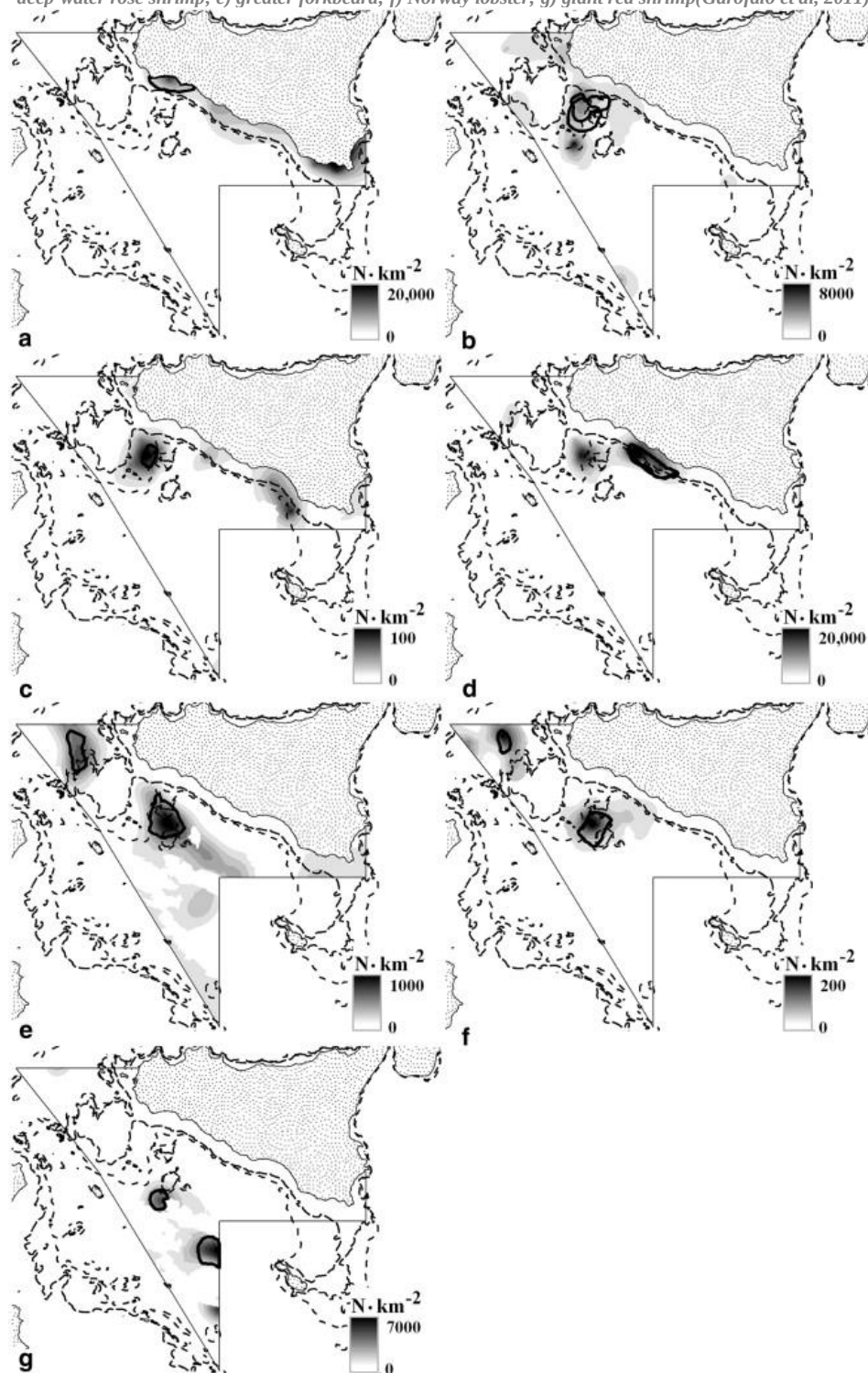


Figure 94. Examples of density maps of recruits, and persistent nurseries of: a) red mullet; b) European hake; c) horned octopus; d) deep-water rose shrimp; e) greater forkbeard; f) Norway lobster; g) giant red shrimp (Garofalo et al, 2011)



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18. HURD BANK

Description and key species

The Hurd bank is the eastward undersea extension of the Malta Island (see Figure 95). It is characterized by its great biological richness and a high hydrodynamic activity (see Figure 96), as it is influenced by many currents including the Ionian shelf break Vortex (ISV). There are magmatic activity areas in nearby zones. This area is one of the main Maltese fisheries, especially for red mullet (*Mullus barbatus*). It is a spawning area for bluefin tuna (*Thunnus thynnus*) (see Figure 98) with a high relative abundance of white shark (*Carcharodon carcharias*) (see Figure 89) and sixgill shark (*Hexanchus griseus*) (see Figure 100). This is also a distribution area for basking shark (*Cetorhinus maximus*). Other key species are common dolphin (*Delphinus delphis*) and loggerhead turtle (*Caretta caretta*). It is also a feeding ground for seabirds. The main threats include overfishing, maritime traffic and banking by tankers and other very large vessels.

Sea-bottom host different substrats including deep maerl/rodolith beds and it is considered an important fisheries area, with species like *Scomber japonicus*, *Trachurus* spp., *Sarda sarda*, *Sardinella aurita*, *Engraulis encrasicolus*, *Boops boops*, *Sardina pilchardus*, *Sphyraena sphyraena*, *Mullus barbatus*, *Serranus cabrilla*, *Pagellus* spp., *Illex coindetii*, *Sepia* spp., *Trachinus* spp., etc.

Depth Range	Approx. 0-100m
Jurisdictional status	Malta Territorial waters
Location (centroid)	Latitude: 35° 53,941' N Longitude: 14° 45,891' E
MedNet Proposal	YES
MEOW	Ionian Sea

KEY SPECIES		Features to be protected according CBD examples
Birds - breeding	<i>Hexanchus griseus</i>	Gyres
<i>Carcharodon carcharias</i>	LARGE PELAGICS - fisheries	Highly migratory fish
<i>Caretta caretta</i>	<i>Thunnus thynnus</i>	Sea turtles
<i>Cetorhinus maximus</i>	<i>Thunnus thynnus</i> (spawning)	Seabirds
<i>Delphinus delphis</i>		Seamount communities
		Sharks
		Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																						
	No information	Low	Medium	High																																			
Uniqueness or rarity																																							
Special importance for life-history stages of species				X																																			
Spawning ground for bluefin tuna																																							
Importance for threatened, endangered or declining species and/or habitats				X																																			
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Carcharodon carcharias</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>VU/EN (Med)</td></tr> <tr> <td><i>Caretta caretta</i></td><td>Appendix I</td><td>Appendix I</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Cetorhinus maximus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>VU/VU (Med)</td></tr> <tr> <td><i>Delphinus delphis</i></td><td>Appendix II</td><td>Appendix I and II</td><td>Annex II</td><td>LC/EN (Med)</td></tr> <tr> <td><i>Hexanchus griseus</i></td><td></td><td></td><td></td><td>NT/VU (Med)</td></tr> <tr> <td><i>Thunnus thynnus</i></td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Carcharodon carcharias</i>	Appendix II	Appendix II	Annex II	VU/EN (Med)	<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)	<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)	<i>Hexanchus griseus</i>				NT/VU (Med)	<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																			
<i>Carcharodon carcharias</i>	Appendix II	Appendix II	Annex II	VU/EN (Med)																																			
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																																			
<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)																																			
<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)																																			
<i>Hexanchus griseus</i>				NT/VU (Med)																																			
<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)																																			

Vulnerability, fragility, sensitivity, or slow recovery				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 95. Location of the Hurd bank



Figure 96. General circulation in the upper layer in summer and winter in the Straits of Sicily (Camilleri et al, 2008)

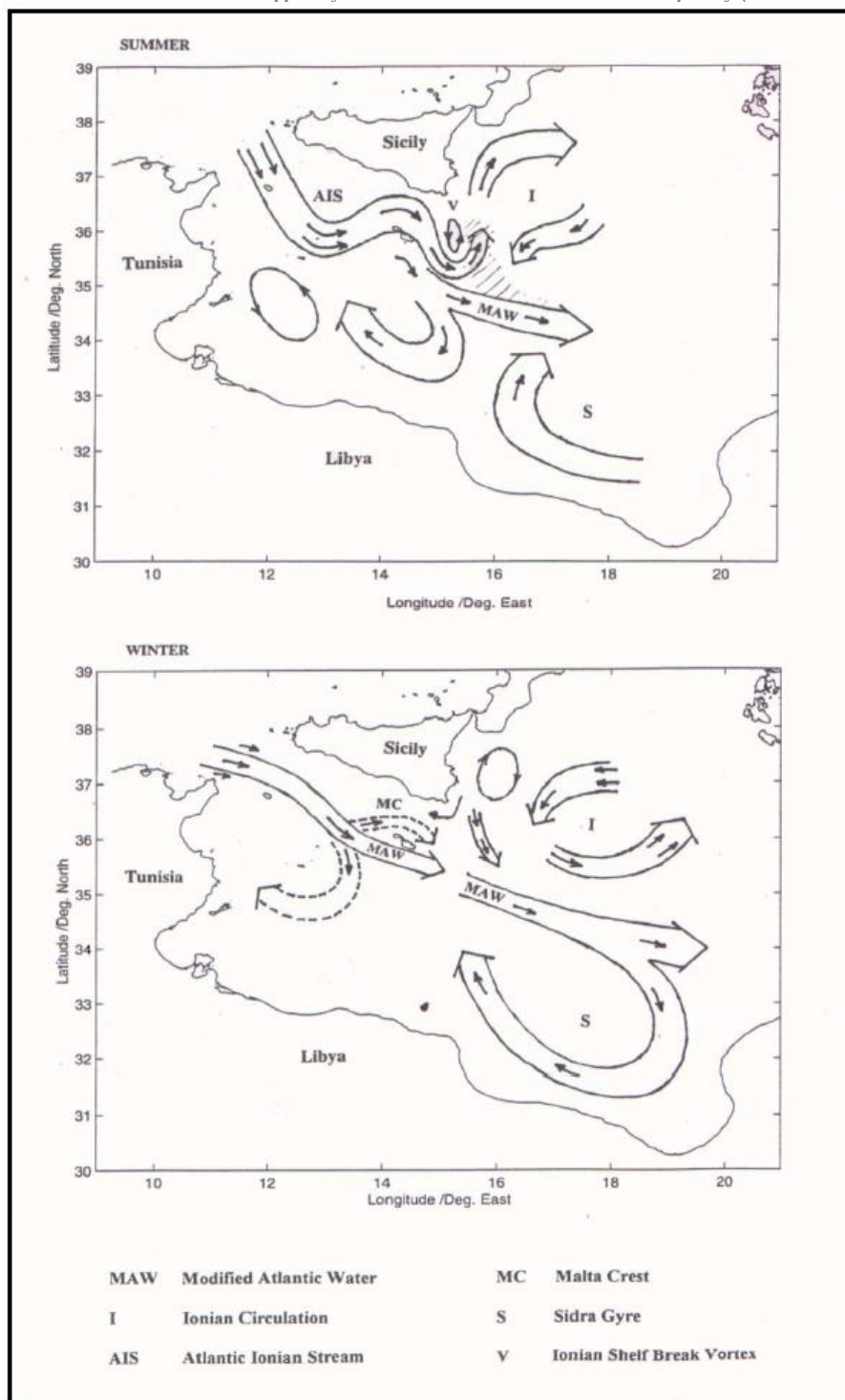


Figure 97. Stability areas of the density index of recruits and adult females of *Mullus barbatus* for spring and autumn ((Camilleri et al, 2008)

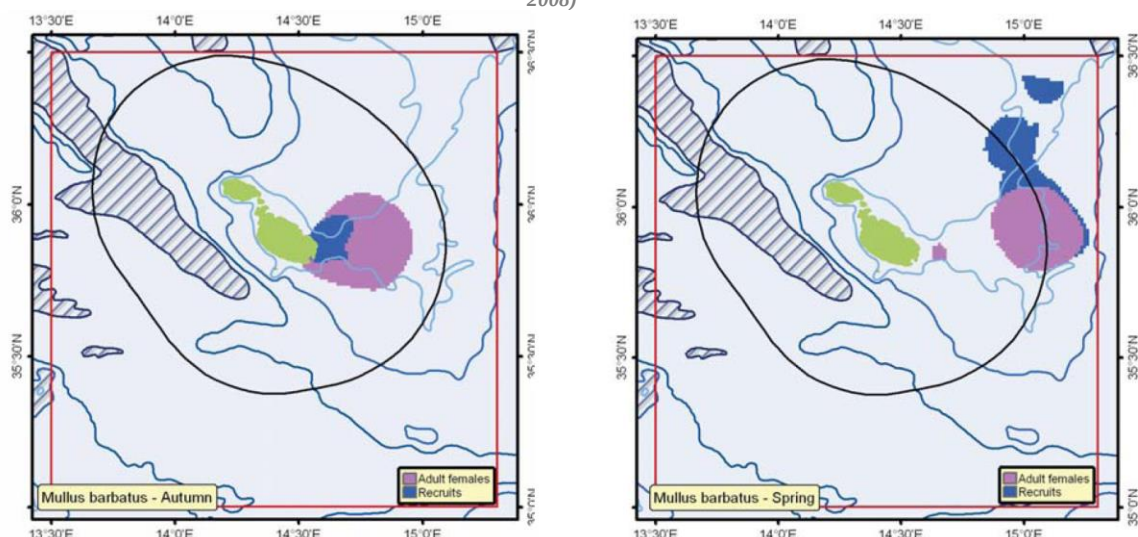
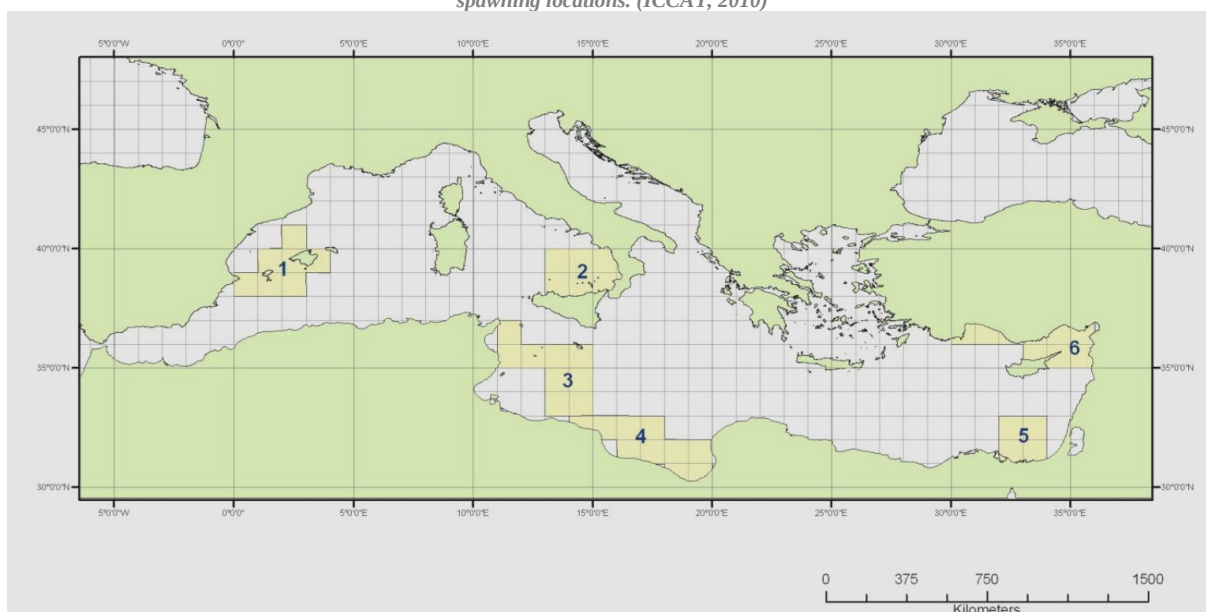


Figure 98. Spawning areas of *Thunnus thynnus* identified through analysis of VMS data used in the 2010 GBYP aerial survey program for surveying spawning biomass in the Mediterranean. These areas are consistent with current scientific knowledge of the main spawning locations. (ICCAT, 2010)



total number of reported
Hexanchus griseus

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19. JARRAFA TROUGH

Description and key species

This is a depression located in the outer area of the gulf of Gabes, which, together with others existing in the area (Tripolitan, Pantellaria, Linosa, Malta) form the main depressions in the Sicily strait. This region is of high geological significance, as it was a key region in the tectonic development of the Mediterranean Sea, and it is surrounded by areas with strong volcanic influences. The area is affected by the permanent Algerian current. The gulf of Gabes is one of the most significant grounds for feeding and hibernation of sea turtles (*Chelonia mydas* and *Caretta caretta*). The occurrence of fin whale (*Balaenoptera physalus*) has also been documented. This site is also a feeding ground for seabirds and harbors high relative presences of sixgill sharks (*Hexanchus griseus*) and giant devil rays (*Mobula mobular*). The westernmost area is defined as a vulnerable habitat as it lies in the migration route of large pelagic fish and is furthermore regarded as a spawning area for white shark (*Carcharodon carcharias*) and bluefin tuna (*Thunnus thynnus*). This is an area targeted by fishermen for its large pelagic fish and cephalopods; the highest fishing activity taking place during summer and one of the main threats comes from the strong fishing pressure on tuna-like populations. The high number of accidental turtle bycatch and drilling are also matters of high concern.

Depth Range	Approx. 100-200m
Jurisdictional status	Tunisia and Libya Territorial waters
Location (centroid)	Latitude: 34° 41,531' N Longitude: 13° 6,266' E
MedNet Proposal	YES
MEOW	Tunisian Plateau/Gulf of Sidra

KEY SPECIES		Features to be protected according CBD examples
<i>Balaenoptera physalus</i> Birds - breeding <i>Caretta caretta</i> Cephalopods <i>Chelonia mydas</i>	<i>Hexanchus griseus</i> LARGE PELAGICS - fisheries <i>Mobula mobular</i> <i>Thunnus thynnus</i>	Highly migratory fish Sea turtles Seabirds Sharks Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																											
	No information	Low	Medium	High																																								
Uniqueness or rarity																																												
Special importance for life-history stages of species																																												
Importance for threatened, endangered or declining species and/or habitats				X																																								
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																								
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<i>Carcharodon carcharias</i>				VU/EN (Med)																																								
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<i>Hexanchus griseus</i>				NT/VU (Med)																																								
<i>Mobula mobular</i>			Annex II	EN/EN (Med)																																								
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Vulnerability, fragility, sensitivity, or slow recovery																																												
Biological productivity																																												

Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 101. Location of the Jarrafa Trough

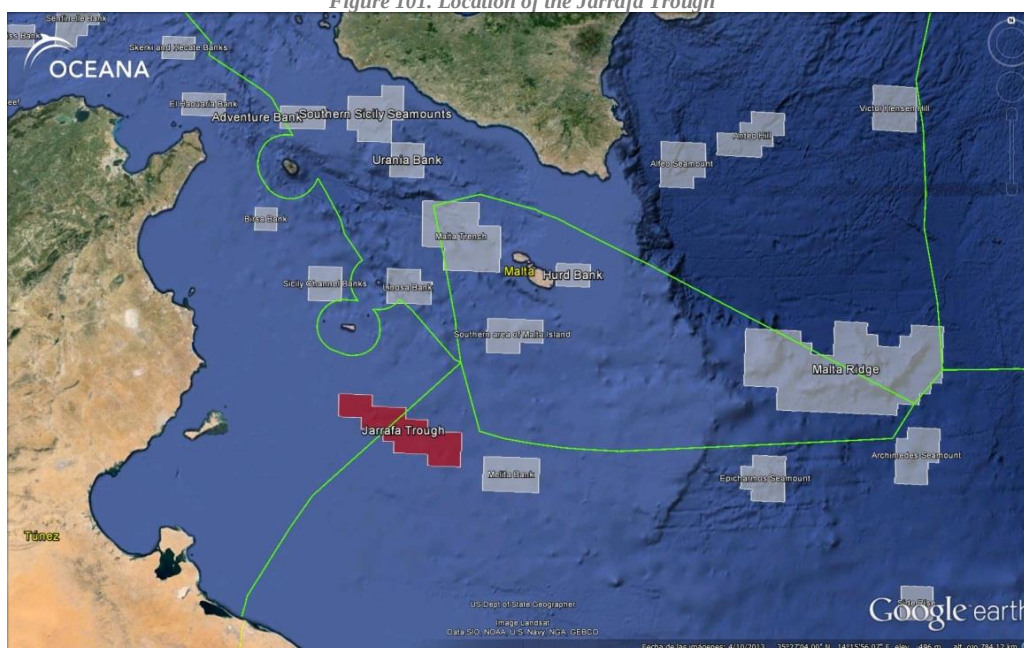
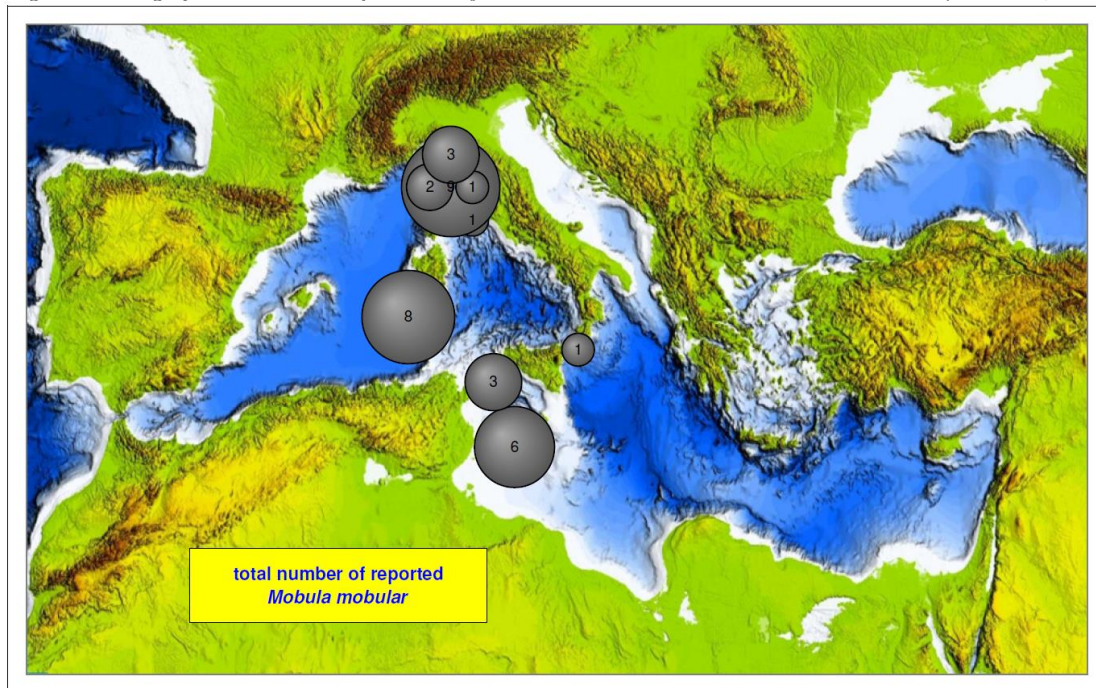


Figure 102. Geographical distribution of the devil ray *Mobula mobular* recorded in the Medlem database. (Baino et al, 2010)



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20. GUITARFISH NURSERY IN THE GULF OF GABES

Description and key species

This information is based on a presentation during the last GFCM-SCMEE meeting (February 2014) on the longline fisheries in the Gulf of Gabès. The abundance of elasmobranchs in catches suggests that these species find favorable conditions to reproduce in the area. The presence of neonates, pregnant post-partum and ovulating females indicates that the area is a pupping or a primary nursery.

The area has extreme significance because of the presence of guitarfish (*Rhinobatos cemiculus* and *Rhinobatos rhinobatos*) and bycatch over these species when longline fleet is targeting swordfish (*Xiphias gladius*). Particular concern about *Rhinobatos rhinobatos* population, since which was common and now virtually extirpated from northern Mediterranean. Both species have been threatened by overfishing (now listed under Annex II, SPA/BD Protocol) and also because of degradation of shallow inshore habitats.

Depth Range	Approx. 20-100m
Jurisdictional status	Tunisia and Libya Territorial waters
Location (centroid)	See Figure 103
MedNet Proposal	NO
MEOW	Tunisian Plateau/Gulf of Sidra

KEY SPECIES	Features to be protected according CBD examples
<i>Rhinobatos cemiculus</i> <i>Rhinobatos rhinobatos</i> <i>Xiphias gladius</i>	Highly migratory fish Sharks

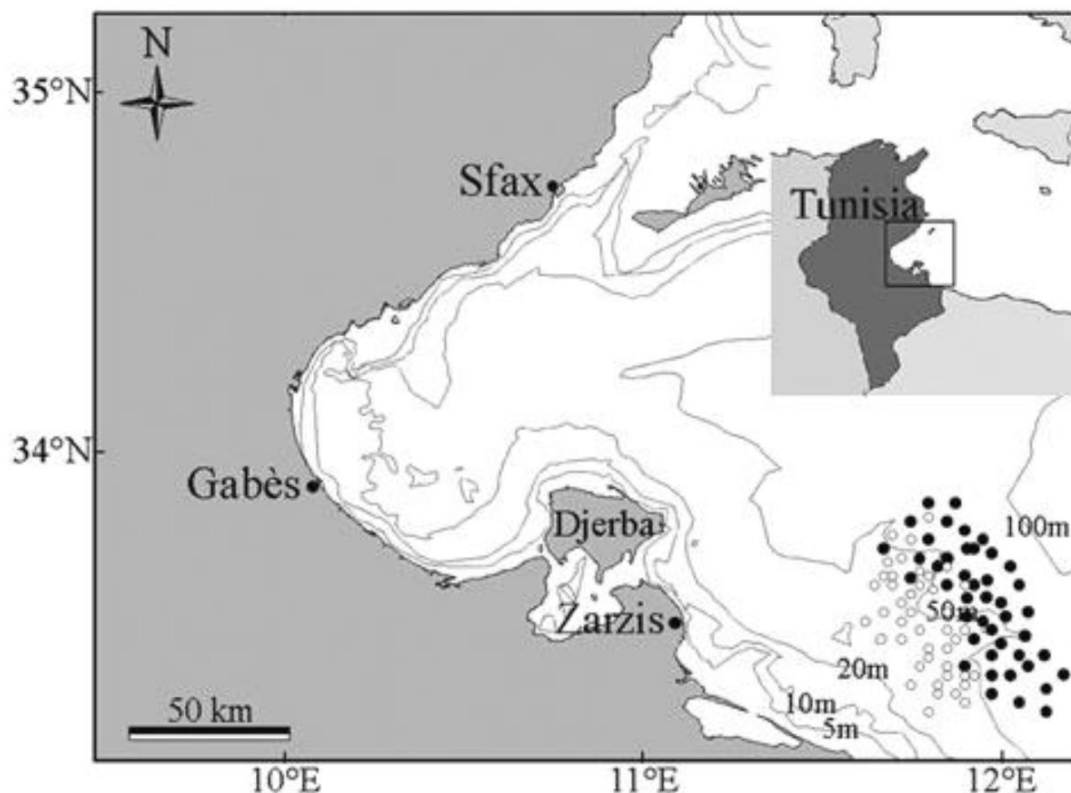
Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																							
	No information	Low	Medium	High																				
Uniqueness or rarity																								
Special importance for life-history stages of species	X																							
<i>The area maybe a nursery for sharks</i>																								
Importance for threatened, endangered or declining species and/or habitats				X																				
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Rhinobatos cemiculus</i></td><td></td><td></td><td>Annex II</td><td>EN/EN (Med)</td></tr> <tr> <td><i>Rhinobatos rhinobatos</i></td><td></td><td></td><td>Annex II</td><td>EN/EN (Med)</td></tr> <tr> <td><i>Xiphias gladius</i></td><td></td><td></td><td>Annex III</td><td>NT (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Rhinobatos cemiculus</i>			Annex II	EN/EN (Med)	<i>Rhinobatos rhinobatos</i>			Annex II	EN/EN (Med)	<i>Xiphias gladius</i>			Annex III	NT (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																				
<i>Rhinobatos cemiculus</i>			Annex II	EN/EN (Med)																				
<i>Rhinobatos rhinobatos</i>			Annex II	EN/EN (Med)																				
<i>Xiphias gladius</i>			Annex III	NT (Med)																				
Vulnerability, fragility, sensitivity, or slow recovery																								
Biological productivity																								
Biological diversity																								
Naturalness																								

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 103. Location



References

Echwikhi K., Saidi B. & M.N. Bradai (2014). Elasmobranchs longline fisheries in the Gulf of Gabès. Presentation to the 14th Session of the Subcommittee on Marine Environment and Ecosystems (GFCM-SAC) URL: https://gfcmsitestorage.blob.core.windows.net/documents/SAC/SCMEE/14/PPT/Gulf_of_Gabes_elasmobranchs_SCME_E2014.pdf

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21. MALTA RIDGE

Description and key species

It is one of the main mountain ranges of the central Mediterranean. It comprises several seamounts and is a volcanic activity area. In its waters such significant species as Cuvier's beaked whale (*Ziphius cavirostris*), sperm whale (*Physeter macrocephalus*), loggerhead turtle (*Caretta caretta*) and bluefin tuna (*Thunnus thynnus*) can be found. The oceanographic features of these seamounts are very significant, as they create strong upwellings which make the area rich in cephalopods, clupeids and scombriforms (egg and larvae). Possibly for this reason, this is an important feeding ground for seabirds, and is probably frequented by cetaceans. The biological richness of this area might be threatened by future gas and oil prospections.

Depth Range	Approx. 500-4000m
Jurisdictional status	Malta and Italy Territorial waters
Location (centroid)	Latitude: 35° 4,304' N Longitude: 17° 23,867' E
MedNet Proposal	YES
MEOW	Ionian Sea and Tunisian Plateau/Gulf of Sidra

KEY SPECIES		Features to be protected according CBD examples
Birds – breeding area	<i>Thunnus thynnus</i>	Gyres
<i>Caretta caretta</i>	<i>Ziphius cavirostris</i>	Highly migratory fish
Cephalopods		Sea turtles
Clupeid (egg & larvae)		Seabirds
<i>Physeter macrocephalus</i>		Seamount communities
Scombriform (egg & larvae)		Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																												
	No information	Low	Medium	High																									
Uniqueness or rarity																													
Special importance for life-history stages of species			X																										
Spawning area for fishing commercial species (clupeids and scombriforms)																													
Importance for threatened, endangered or declining species and/or habitats				X																									
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Caretta caretta</i></td><td>Appendix I</td><td>Appendix I</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Physeter macrocephalus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>VU/EN (Med)</td></tr> <tr> <td><i>Thunnus thynnus</i></td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> <tr> <td><i>Ziphius cavirostris</i></td><td>Appendix II</td><td></td><td>Annex II</td><td>LC</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU/EN (Med)	<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)	<i>Ziphius cavirostris</i>	Appendix II		Annex II	LC
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																									
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																									
<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU/EN (Med)																									
<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)																									
<i>Ziphius cavirostris</i>	Appendix II		Annex II	LC																									
Vulnerability, fragility, sensitivity, or slow recovery																													
Biological productivity																													
Biological diversity																													
Naturalness																													

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 104. Location of the Malta ridge



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22. NORTHERN ADRIATIC

Description and key species

This is the deepest zone in the north Adriatic Sea, between the Italian coast of Pescara and the Croatian coast of Šibenik (see Figure 105). This area is characterized by the presence of several shark species (see Figure 106): porbeagle (*Lamna nasus*), smooth hammerhead (*Sphyrna zygaena*), shortfin mako (*Isurus oxyrinchus*), basking shark (*Cetorhinus maximus*), blue shark (*Prionace glauca*) and white shark (*Carcharodon carcharias*). Furthermore, other sites within the area are considered as nurseries for threatened shark species such as blue shark and porbeagle. In the late 40s, this area used to be rich in elasmobranch species. Since then, the populations of such species have been dramatically depleted in the Adriatic Sea. It covers a distribution area for loggerhead turtle (*Caretta caretta*), and is also a fishing area for large pelagic fish. Regarding benthic species, several types of corals can be found (Scleractinia and Actiniaria). It is considered an Essential Fish Habitat (EFH): nursery for commercial species and spawning area for hake (*Merluccius merluccius*). The main threats come from the overexploitation of juvenile fish, bottom trawling or accidental catches among others.

Depth Range	Approx. 100-250 m
Jurisdictional status	Italy and Croatia Territorial waters
Location (centroid)	Latitude: 43° 6,620' N Longitude: 15° 3,523' E
MedNet Proposal	YES
MEOW	Adriatic Sea

KEY SPECIES		Features to be protected according CBD examples
Actiniaria (Hexacoral) <i>Carcharodon carcharias</i> <i>Caretta caretta</i> <i>Cetorhinus maximus</i> <i>Isurus oxyrinchus</i> <i>Lamna nasus</i>	Large Pelagics - fisheries <i>Merluccius merluccius</i> <i>Prionace glauca</i> Scleractinia (Hexacoral) <i>Sphyrna zygaena</i>	Coral, sponge and bryozoan aggregations Sea turtles Sharks

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																																
	No information	Low	Medium	High																																													
Uniqueness or rarity																																																	
Special importance for life-history stages of species																																																	
Nursery for commercial species and spawning area for hake																																																	
Importance for threatened, endangered or declining species and/or habitats				X																																													
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																													
<i>Carcharodon carcharias</i>	Appendix II	Appendix II	Annex II	VU/EN (Med)																																													
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																																													
<i>Cetorhinus maximus</i>	Appendix II	Appendix II	Annex II	VU/VU (Med)																																													
<i>Isurus oxyrinchus</i>		Appendix II	Annex II	VU/CR (Med)																																													
<i>Lamna nasus</i>	Appendix II	Appendix II	Annex II	VU/CR (Med)																																													
<i>Merluccius merluccius</i>				VU (Med)																																													
<i>Prionace glauca</i>			Annex III	NT/VU (Med)																																													
<i>Sphyrna zygaena</i>	Appendix II		Annex II	VU/VU (Med)																																													

Vulnerability, fragility, sensitivity, or slow recovery				X
<i>Corals occurrence</i>				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 105. Location of Northern Adriatic site

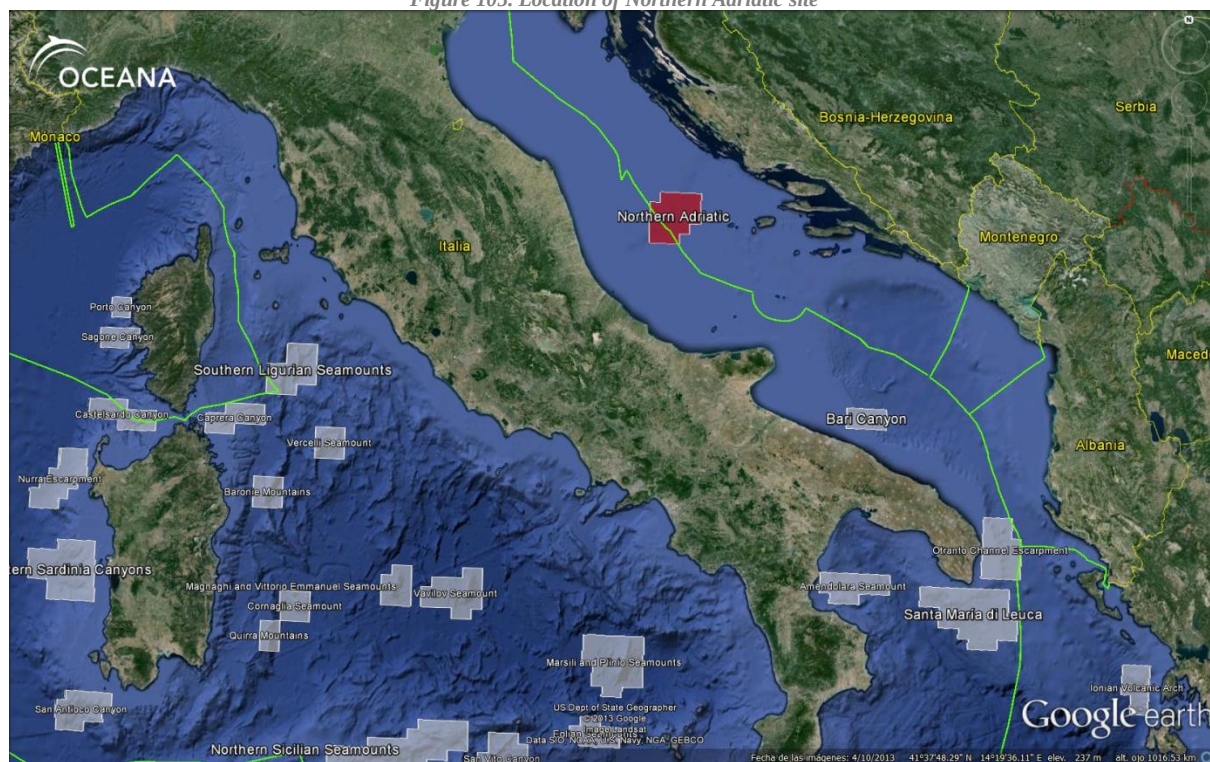
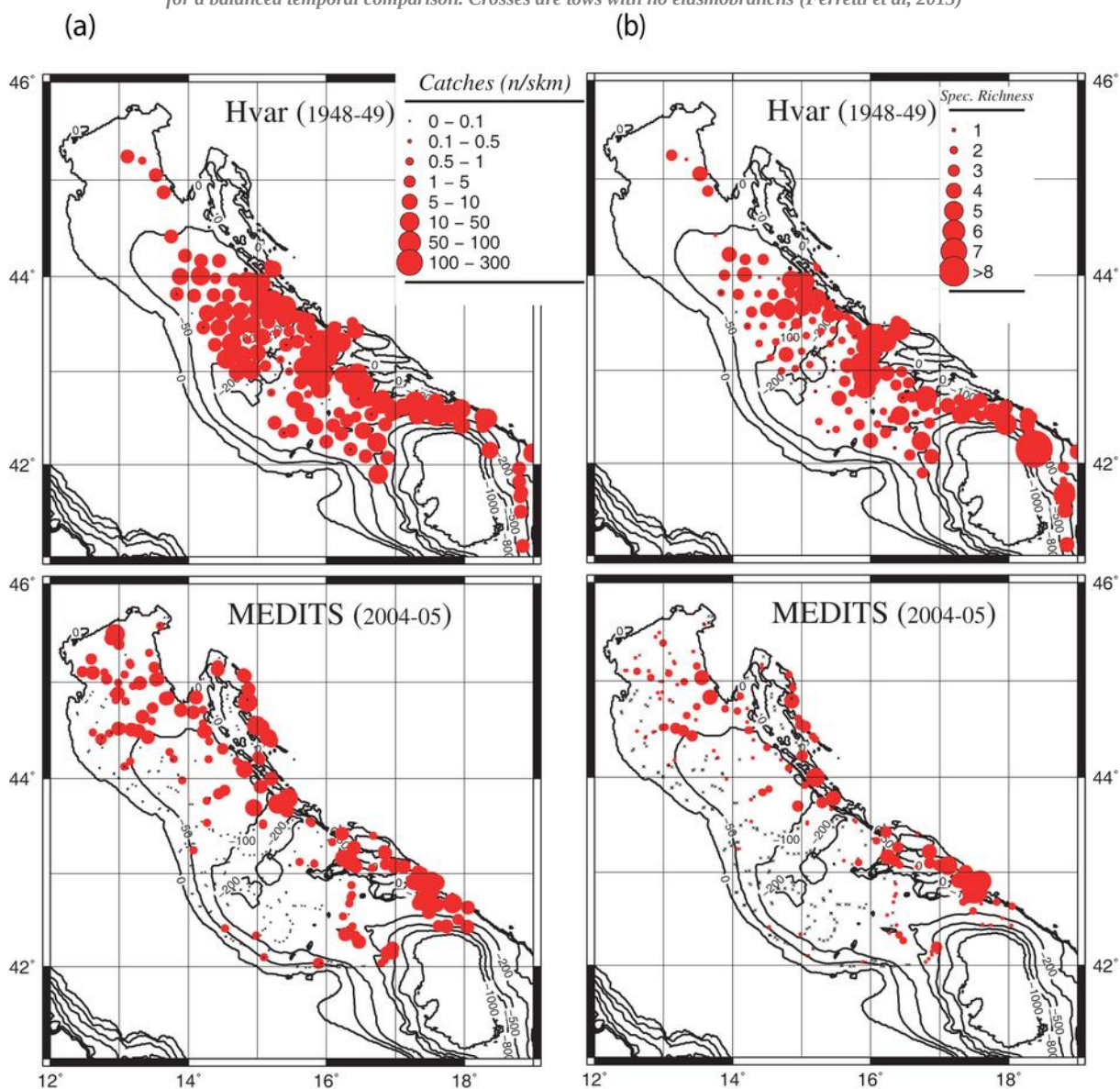


Figure 106. (a) unstandardized CPUEs, and (b) species richness. For MEDITS we selected only the last two years of the series (2004–05) for a balanced temporal comparison. Crosses are tows with no elasmobranchs (Ferretti et al, 2013)



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23. BARI CANYON

Description and key species

The Bari Canyon plays an important role in the dynamics of the Adriatic Sea as it works as the main channel in the transport of sediments between the western Adriatic shelf and the southern basin. It is part of a sediment conduit from the Po River into the southern Adriatic basin and it is generally assumed to play an important role in dense water sinking and sediment transfer to the deep Adriatic basin (see Figure 109). In the area we can find a swordfish (*Xiphias gladius*) longline surface fishery with associated catches of blue shark (*Prionace glauca*). On the benthos, species of deep sea corals, cold water corals (*Lophelia pertusa* and *Madrepora oculata*), stony corals as *Desmophyllum dianthus* and *Stenocyathus vermiformis* and the yellow coral *Dendrophyllia cornigera* (see Figure 108) have been documented (Freiwald *et al.* 2009). Deep-sea sponge aggregations (*Pachastrella monilifera* and *Poecillastra compressa*) represent important biodiversity reservoirs and contribute to the trophic recycling of organic matter (see Figure 110). The main threats they face are bottom trawling and bycatch.

Depth Range	Approx. 100-1000m
Jurisdictional status	Italy Territorial waters
Location (centroid)	Latitude: 41° 17,256' N Longitude: 17° 15,141' E
MedNet Proposal	YES
MEOW	Adriatic Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Dendrophyllia cornigera</i> <i>Lophelia pertusa</i> <i>Madrepora oculata</i> <i>Prionace glauca</i> <i>Xiphias gladius</i>	Canyons Cold water coral reefs Coral, sponge and bryozoan aggregations Sharks

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																						
	No information	Low	Medium	High																																			
Uniqueness or rarity																																							
Special importance for life-history stages of species																																							
Importance for threatened, endangered or declining species and/or habitats				X																																			
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																			
<i>Dendrophyllia cornigera</i>	Appendix II																																						
<i>Lophelia pertusa</i>	Appendix II		Annex II																																				
<i>Madrepora oculata</i>	Appendix II																																						
<i>Madrepora oculata</i>	Appendix II		Annex II																																				
<i>Prionace glauca</i>			Annex III	NT/VU (Med)																																			
<i>Xiphias gladius</i>			Annex III	NT (Med)																																			
Vulnerability, fragility, sensitivity, or slow recovery				X																																			
<i>Occurrence of corals and sponge gardens</i>																																							
Biological productivity																																							
Biological diversity																																							
Naturalness																																							

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN);

Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 107. Location of the Bari canyon

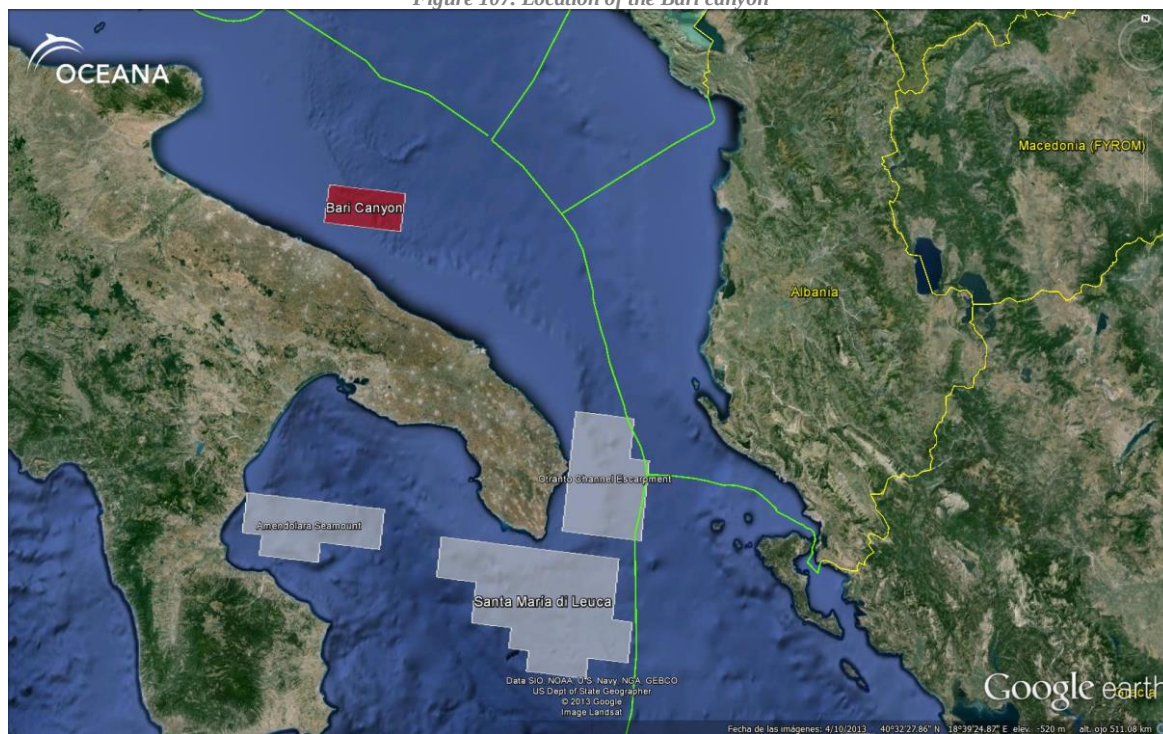


Figure 108. Occurrences of live white coral communities in the Mediterranean Sea according to Freiwald et al (2009)

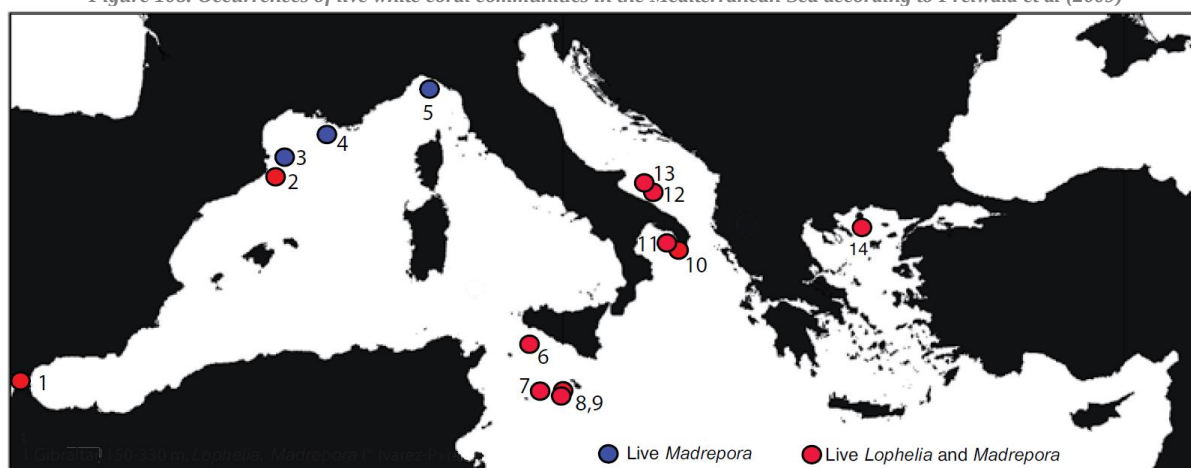


Figure 109. (A) Schematic reconstruction of regional intermediate- and bottom-water circulation patterns in the Adriatic basin. Thin blue arrows: Area of dense shelf water formation. Thick blue arrows: North Adriatic Dense Water flow. Red arrows: Levantine Intermediate Water flow. (B–C) Emergence of the Adriatic shelf during the Last Glacial Maximum in cross section and in plan view. (D–

E) Hydrological sections across the Bari margin showing the near-bottom location of the densest and coldest water mass (Canalas et al, 2009).

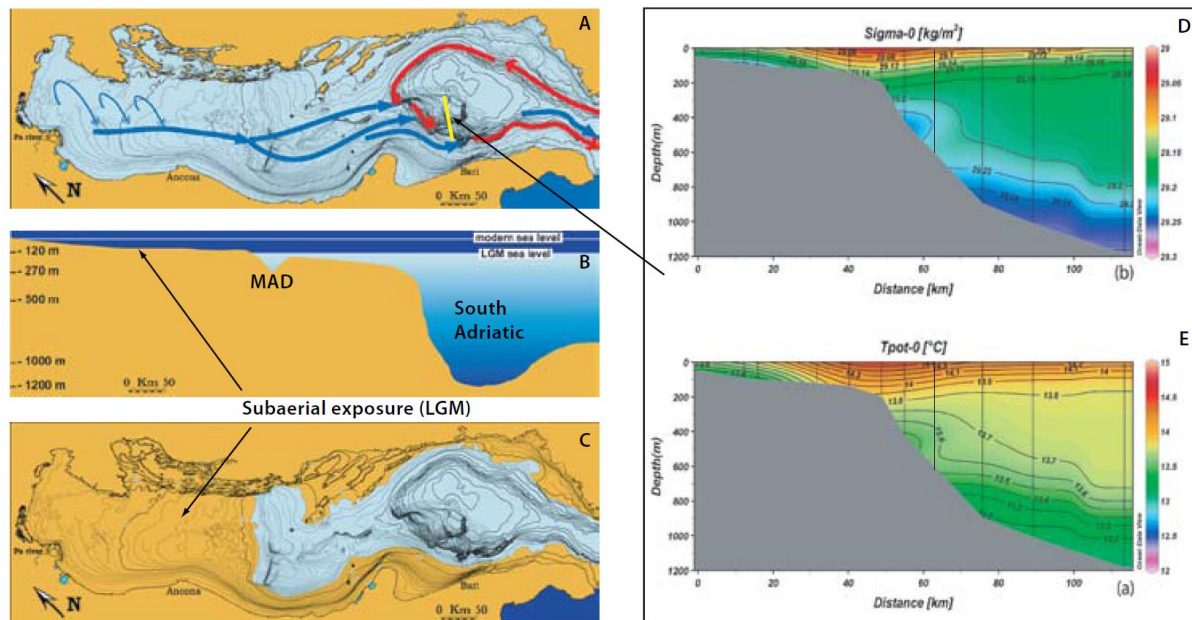
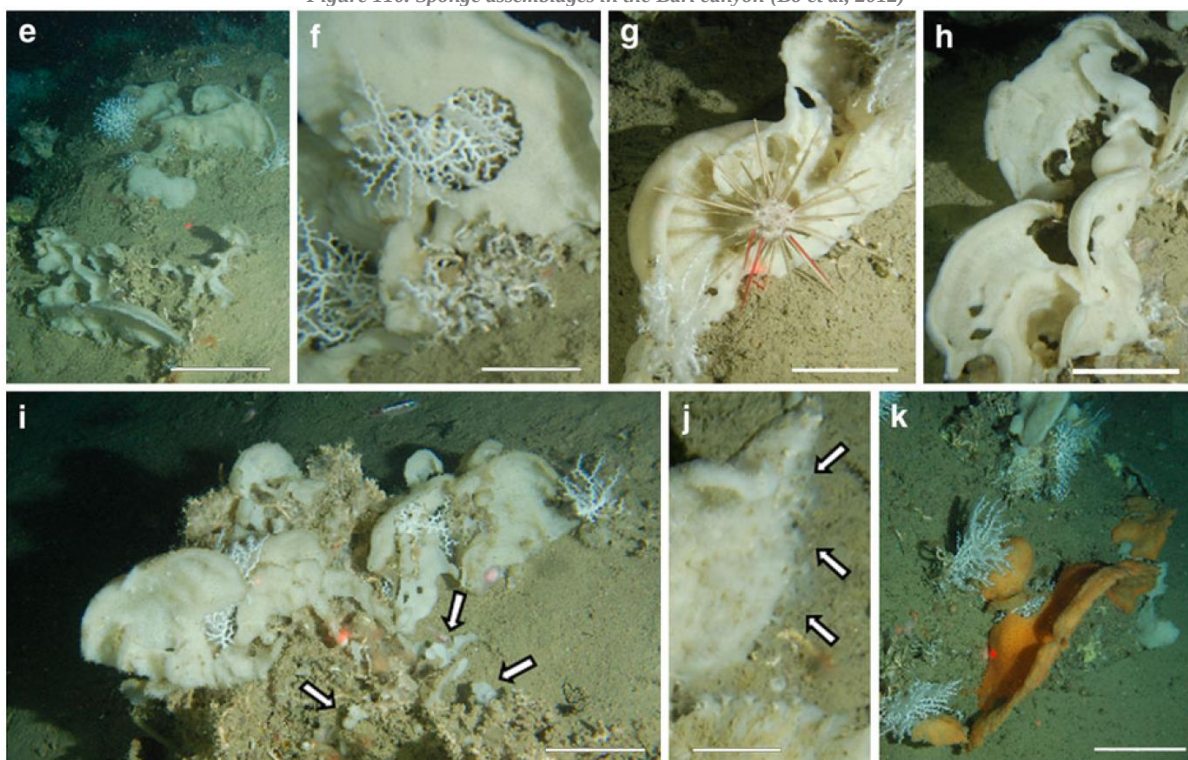


Figure 110. Sponge assemblages in the Bari canyon (Bo et al, 2012)



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http://www.ieo.es/apartar/varios/libro_cambio_climatico.pdf

24. SANTA MARÍA DI LEUCA

Description and key species

Located in the southern Apulia margin (see Figure 111), its importance mainly resides on the occurrence of deep-sea corals, especially on the living and dead colonies of *Lophelia pertusa* and *Madrepora oculata*. In addition to cold water corals, other sponge (see Figure 113) and coral species (see Figure 114) such as *Leiopathes glaberrima* and *Desmophyllum dianthus* have also been documented along with gorgonian gardens of *Paramuricea macrospina* (Mastrototaro *et al.*, 2010). The distribution of the cold water coral community seems to be strictly related to the local topography and hydrodynamic regime. It is linked to the main deep outflow coming from the Adriatic Sea into the northern Ionian Sea which provides a regular supply of nutrients and particulate organic matter. In 2006, Santa Maria di Leuca was designated under the GFCM as a Fishery Restricted Area (FRA) banning the use of towed gears due to the relationship between the *Lophelia* reef and the occurrence of priority commercial species (e.g. *Aristaeomorpha foliacea*, *Aristeus antennatus*, *Merluccius merluccius*, *Nephrops norvegicus*, *Pagellus bogaraveo*). It is necessary to highlight that blue shark (*Prionace glauca*) is fished in the area despite being listed under the main reference lists for protection. Due to this area's strong oceanographic conditions it constitutes an important migratory corridor for cetaceans like the short-beaked common dolphin (*Delphinus delphis*) and marine turtles. In fact, because of its strategic location close to the Otranto Strait it is used as feeding area by the loggerhead turtle (*Caretta caretta*). Close to the coral biocoenosis, some typical bathyal species also occur (e.g. *Chimaera monstrosa*, *Dalathias licha*, *Galeus melastomus*, *Aulopus filamentosus*, *Chlorophthalmus agassizi*, *Helicolenus dactylopterus*, *Caelorinchus caelorhincus*). Regarding seabirds the site is considered a breeding area. Another important characteristic is the appearance of weak methane anomalies detected at the base of some fault-linked scarps. At first, the coral colonies growth was attributed to seeping fluids. However, it has been demonstrated that it does not occur.

Depth Range	Approx. 100-1100 m
Jurisdictional status	Italy Territorial waters
Location (centroid)	Latitude: 39° 30,746' N Longitude: 18° 23,067' E
MedNet Proposal	YES
MEOW	Ionian Sea

KEY SPECIES		Features to be protected according CBD examples
<i>Bebryce mollis</i>	<i>Leiopathes glaberrima</i>	Carbonate mounds
<i>Caretta caretta</i>	<i>Leucoraja fullonica</i>	Cold water coral reefs
<i>Caryophyllia calveri</i>	<i>Lophelia pertusa</i>	Coral, sponge and bryozoan aggregations
<i>Chimaera monstrosa</i>	<i>Madrepora oculata</i>	Gas hydrates
<i>Dalathias licha</i>	<i>Merluccius merluccius</i>	Sea turtles
<i>Delphinus delphis</i>	<i>Pagellus bogaraveo</i>	Seabirds
<i>Dendrobrachia cf. fallx</i>	<i>Paramuricea macrospina</i>	Sharks
<i>Dendrophyllia cornigera</i>	<i>Phycis blennoides</i>	Whales and other cetaceans
<i>Desmophyllum dianthus</i>	<i>Polyprion americanus</i>	
<i>Dipturus oxyrinchus</i>	<i>Prionace glauca</i>	
<i>Etmopterus spinax</i>	<i>Stenocyathus vermiformis</i>	
<i>Galeus melanostomus</i>	<i>Swiftia pallida</i>	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance			
	No information	Low	Medium	High
Uniqueness or rarity				
Special importance for life-history stages of species				
Importance for threatened, endangered or declining species and/or habitats				
spp CITES CMS SPA/BD Protocol IUCN Red List (*)				

<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN
<i>Caryophyllia calveri</i>	Appendix II			
<i>Chimaera monstrosa</i>				NT
<i>Dalatias licha</i>				NT
<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)
<i>Dendrophyllia cornigera</i>	Appendix II			
<i>Desmophyllum dianthus</i>	Appendix II			
<i>Dipturus oxyrinchus</i>				NT
<i>Leiopathes glaberrima</i>	Appendix II		Annex II	
<i>Leucoraja fullonica</i>				NT/NT (Med)
<i>Lophelia pertusa</i>	Appendix II		Annex II	
<i>Madrepora oculata</i>	Appendix II		Annex II	
<i>Merluccius merluccius</i>				VU (Med)
<i>Prionace glauca</i>			Annex III	NT/VU (Med)
Vulnerability, fragility, sensitivity, or slow recovery				
Biological productivity				
Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 111. Location of Santa María di Leuca

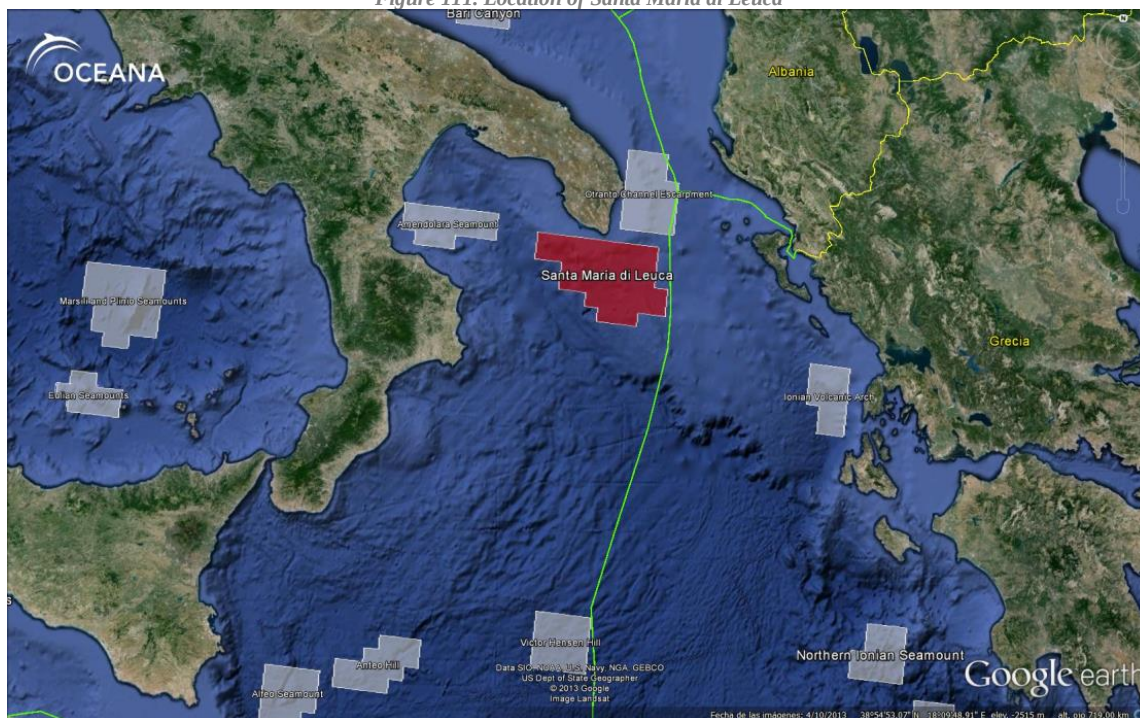


Figure 112. Santa Maria di Leuca cold-water coral (CWC) province in the Mediterranean Sea and bathymetric framework within the southern Apulia (D'Onglia et al, 2012)

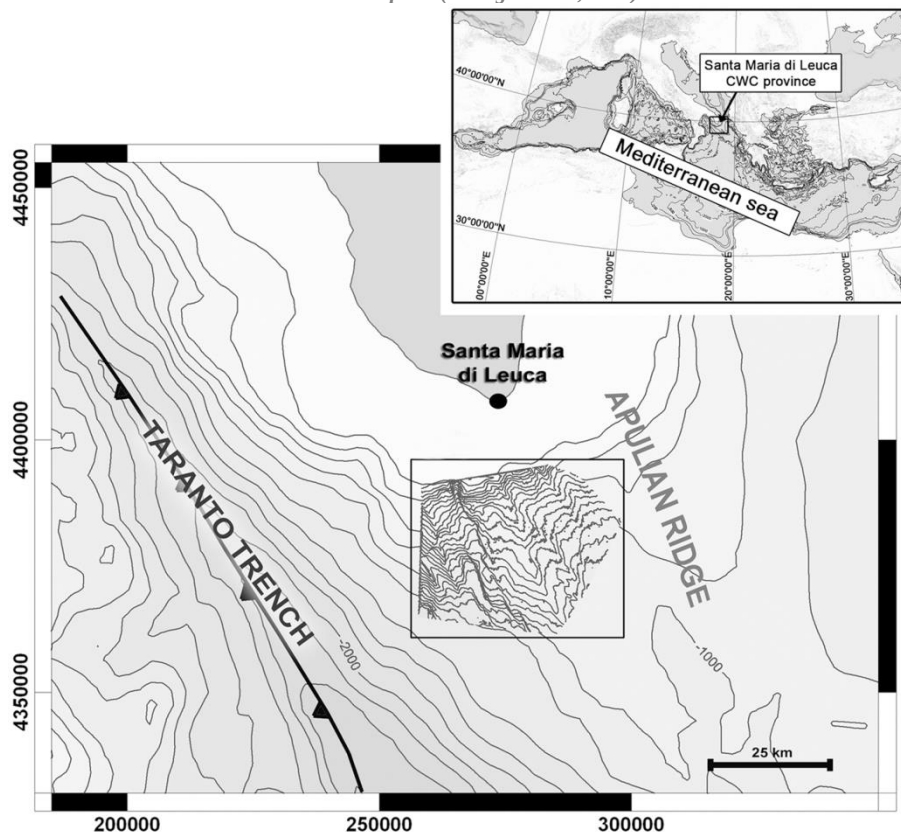


Figure 113. Sponges associated with the white corals in Santa Maria di Leuca. (a) *Spongosorites* sp.; (b) *Poecillastra compressa*; (c) *Thrombus abyssi*; (d) *Pachastrella monilifera*; (e) *Erylus papulifer*; (f) *Spiroxya levispira*.

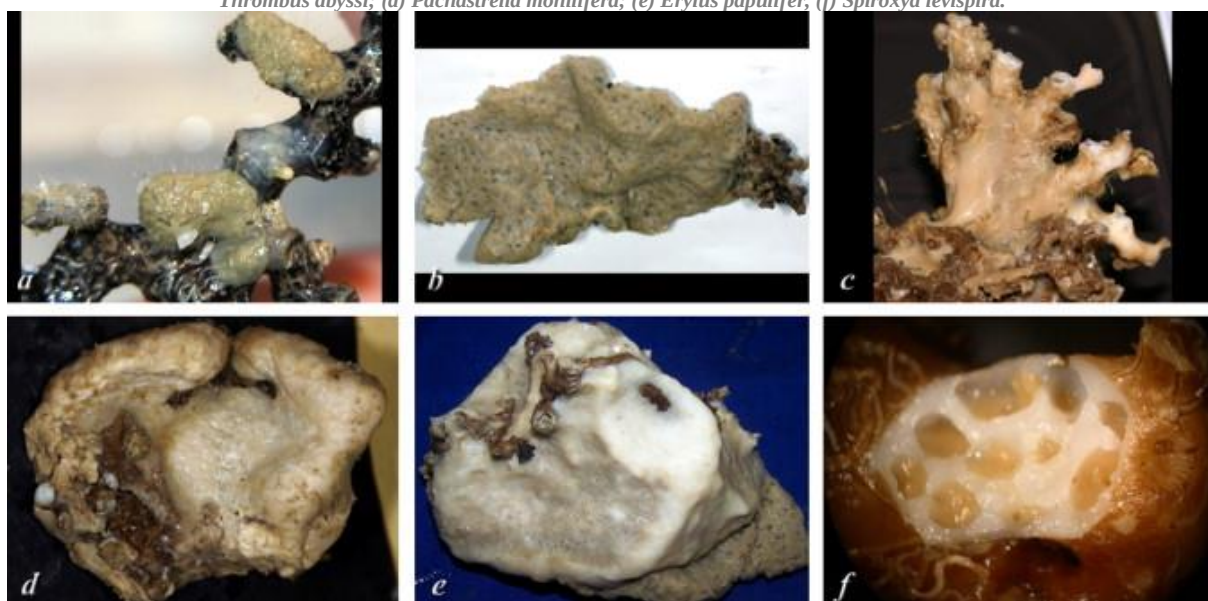
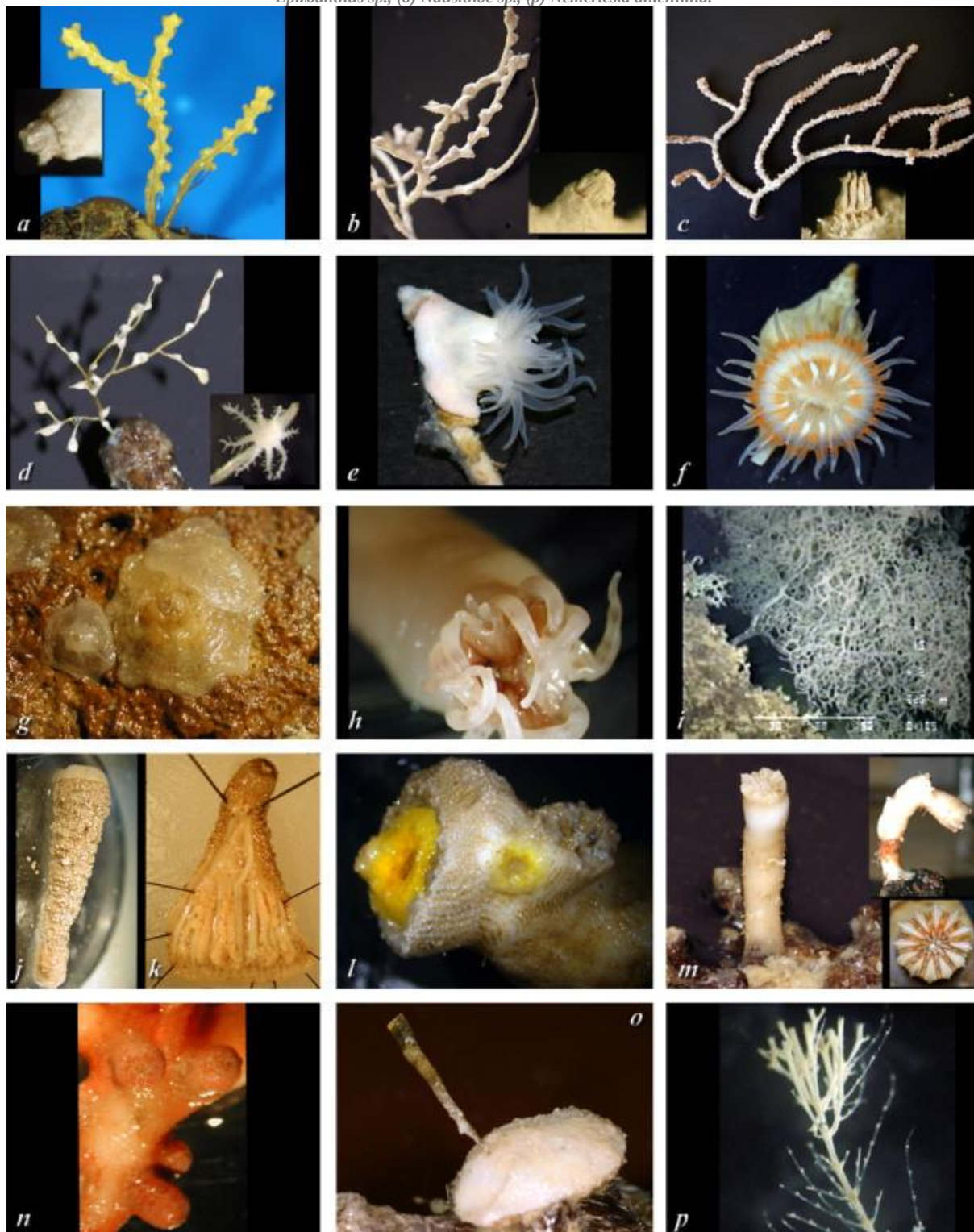


Figure 114. Cnidarians associated with the white corals in Santa Maria di Leuca. (a) *Bebryce mollis*; (b) *Swiftia pallida*; (c) *Paramuricea macrospina*; (d) *Dendrobrachia* cfr. *fallax*; (e) *Amphianthus dornhi*; (f) *Sargatia elegans*; (g) *Kadophellia bathyalis*; (h) *Peachia cylindrica*, (i) *Leiopathes glaberrima*; (j) and (k) undetermined Actiniaria; (l) *Dendrophyllia cornigera*; (m) *Caryophyllia calveri*; (n) *Epizoanthus* sp., (o) *Nausithoe* sp., (p) *Nemertesia antennina*.



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25. NORTHERN IONIAN SEAMOUNT

Description and key species

Off the West coast of Greece, lies the Northern Ionian Seamount (see Figure 115 and Figure 116). This geological feature creates upwelling and thus is a high primary production area bedded with fragile coralligenous communities. The area concentrates many large pelagic species such as blue sharks (*Prionace glauca*), and is of particular concern for the important aggregation of cetacean species (*Balaenoptera physalus*, *Delphinus delphis*, *Physeter macrocephalus*, *Tursiops truncatus*, *Ziphius cavirostris*). The presence of the endangered fin whale (*Balaenoptera physalus*) and the sperm whale (*Physeter macrocephalus*) calls for urgent protection of the proposed area. Deep-sea fishing catches in the area have shown the occurrence of several elasmobranch species, including endangered and threatened species like *Squalus acanthias* and *Centrophorus granulosus* (Anastasopoulou *et al.*, 2013; Baino *et al.*, 2001). Northern slope areas surrounding the seamount are important for commercial pelagic and demersal commercial fish species and deep-sea crustaceans like red shrimp (*Aristeus antennatus*) (Kapiris & Thessalou-Legaki, 2011). That significant fishing may be extended to the seamount area.

Depth Range	Approx. 1000-3000m
Jurisdictional status	Greece Territorial waters
Location (centroid)	Latitude: 37° 2,644' N Longitude: 20° 38,525' E
MedNet Proposal	YES
MEOW	Ionian Sea

KEY SPECIES		Features to be protected according CBD examples
<i>Balaenoptera physalus</i>	<i>Prionace glauca</i>	Seamount communities
<i>Centrophorus granulosus</i>	<i>Squalus acanthias</i>	Whales and other cetaceans
<i>Delphinus delphis</i>	<i>Tursiops truncatus</i>	
<i>Physeter macrocephalus</i>	<i>Ziphius cavirostris</i>	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																																
	No information	Low	Medium	High																																													
Uniqueness or rarity																																																	
Special importance for life-history stages of species																																																	
Importance for threatened, endangered or declining species and/or habitats				X																																													
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																													
<i>Balaenoptera physalus</i>	Appendix I	Appendix I and II	Annex II	EN/VU (Med)																																													
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<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)																																													
<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU/EN (Med)																																													
<i>Prionace glauca</i>			Annex III	NT/VU (Med)																																													
<i>Squalus acanthias</i>				VU/EN (Med)																																													
<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)																																													
<i>Ziphius cavirostris</i>	Appendix II		Annex II	LC																																													
Vulnerability, fragility, sensitivity, or slow recovery																																																	
Biological productivity																																																	

Biological diversity				
Naturalness				

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 115. Location of the Northern Ionian seamount

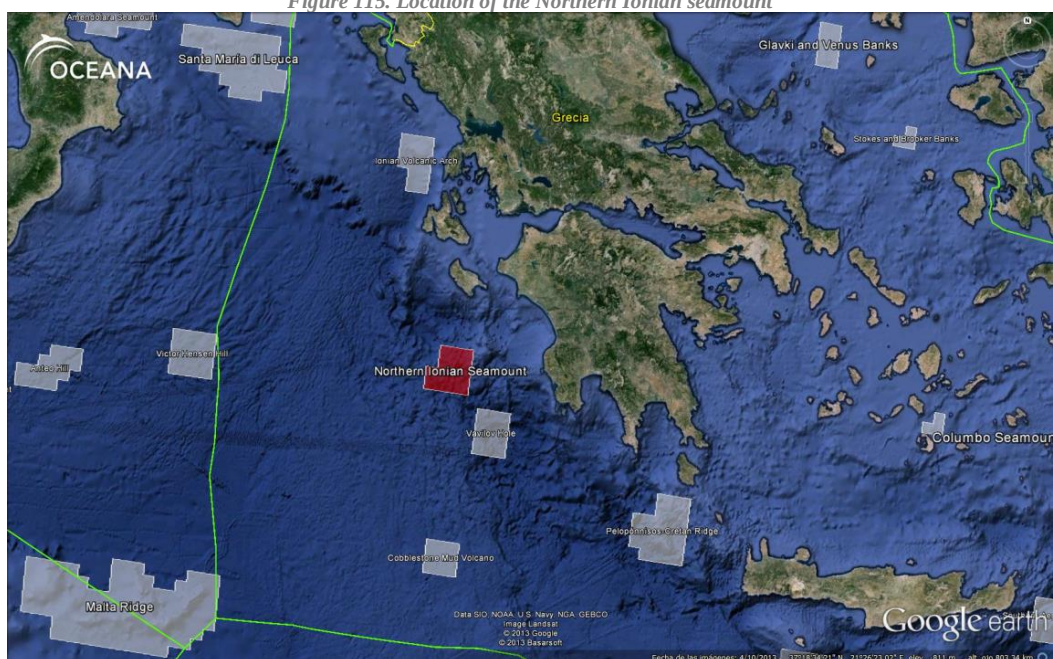
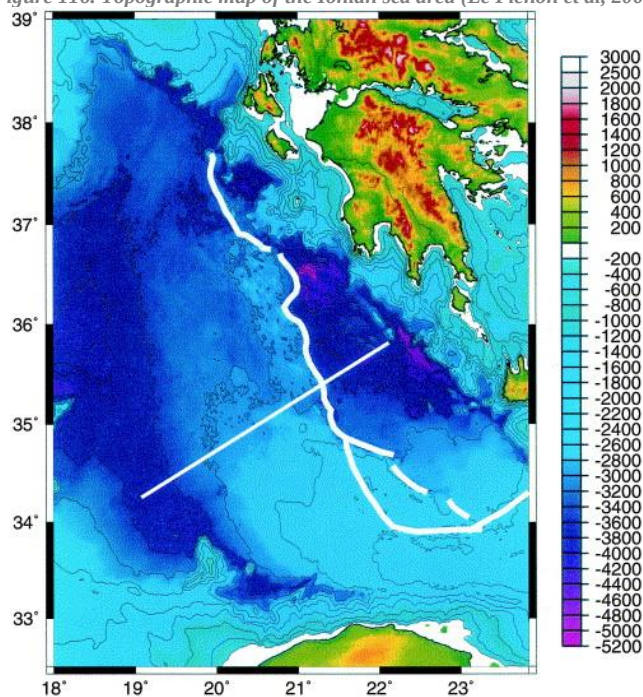


Figure 116. Topographic map of the Ionian sea area (Le Pichon et al, 2002)



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26. SOUTHERN IONIAN SEAMOUNTS

Description and key species

Located off the Libyan coast, the Southern Ionian Seamounts comprises many important geological structures including the Herodotus, Battos and Cyrene seamounts as well as the Herodotus Trench. The Herodotus seamount is linked with the formation of eddies off the Libyan coast and into the Levantine Basin (see Figure 118). These eddies together with the seamounts are source of productivity and biological diversity. The Southern Ionian Sea is poorly documented but there have been sightings of the critically endangered Mediterranean Monk Seal (*Monachus monachus*) and the endangered Green Turtle (*Chelonia mydas*). Furthermore, this region is also a fishery for Bluefin Tuna (*Thunnus thynnus*) with possible spawning. The Southern Ionian Seamounts are particularly threatened by oil and gas prospecting and drilling as discoveries of sub-salt gas offshore Israel have significantly increased the interest of the industry in the eastern Mediterranean. Furthermore there are large amounts of gas hydrates that could also interest the oil and gas industry.

Depth Range	Approx. 2000-4000 m
Jurisdictional status	Libya Territorial waters
Location (centroid)	Latitude: 33° 27,970' N Longitude: 20° 6,655' E
MedNet Proposal	YES
MEOW	Tunisian Plateau/Gulf of Sidra

KEY SPECIES	Features to be protected according CBD examples
<i>Chelonia mydas</i> <i>Monachus monachus</i> <i>Thunnus thynnus</i>	Gas hydrates Gyres Seamount communities

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																							
	No information	Low	Medium	High																				
Uniqueness or rarity																								
Special importance for life-history stages of species																								
Importance for threatened, endangered or declining species and/or habitats	X																							
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Chelonia mydas</i></td><td>Appendix I</td><td></td><td></td><td></td></tr> <tr> <td><i>Monachus monachus</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>CR</td></tr> <tr> <td><i>Thunnus thynnus</i></td><td></td><td></td><td></td><td>EN/EN (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Chelonia mydas</i>	Appendix I				<i>Monachus monachus</i>	Appendix I	Appendix I and II	Annex II	CR	<i>Thunnus thynnus</i>				EN/EN (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																				
<i>Chelonia mydas</i>	Appendix I																							
<i>Monachus monachus</i>	Appendix I	Appendix I and II	Annex II	CR																				
<i>Thunnus thynnus</i>				EN/EN (Med)																				
Vulnerability, fragility, sensitivity, or slow recovery																								
Biological productivity																								
Biological diversity	X																							
Naturalness																								

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 117. Location of the Southern Eolian seamounts

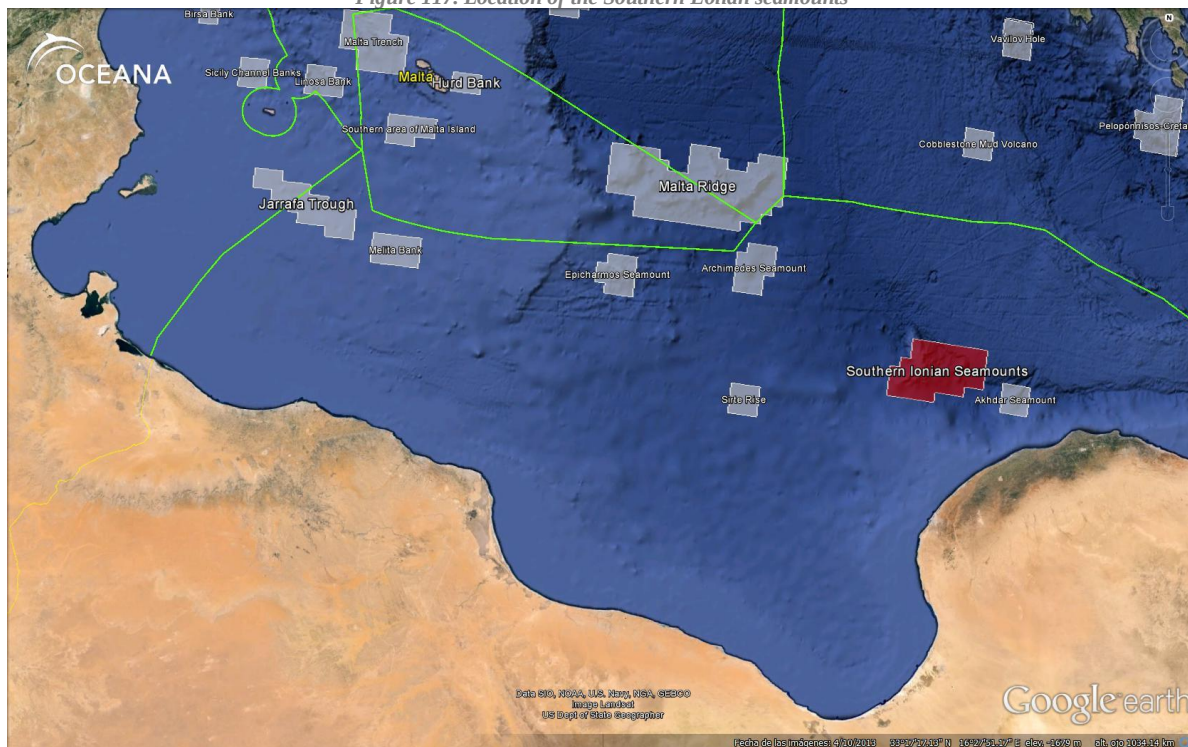
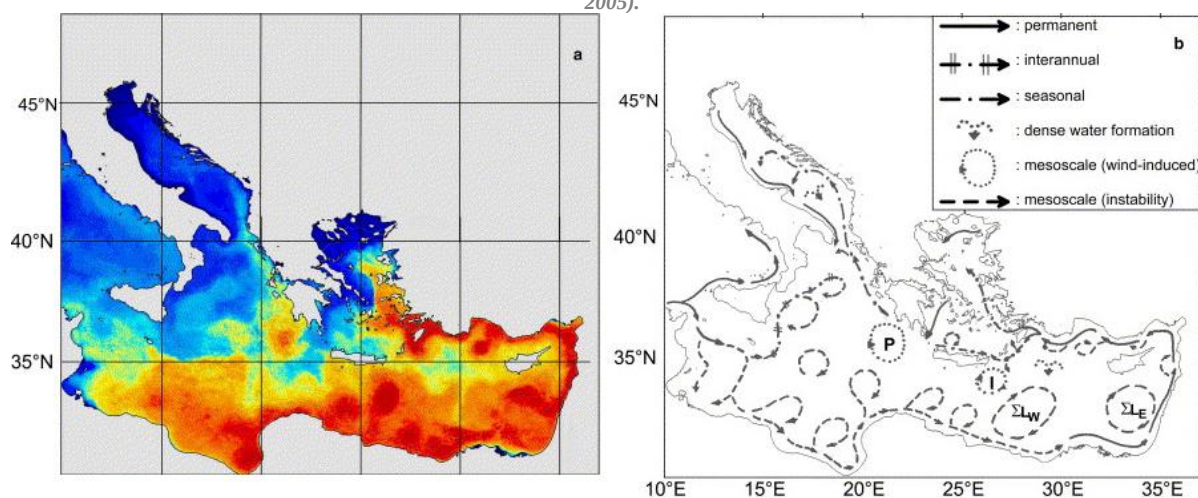


Figure 118. The eastern basin of the Mediterranean Sea in January 1998 (SST, a), and our surface circulation scheme (b) (Hamad et al., 2005).



References

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(<http://www.sciencedirect.com/science/article/B6V7B-4GHRBWC-1/2/d989a374ddde8187cbc491a3da8fce37>)
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27. PTOLEMY SEAMOUNTS

Description and key species

The area lies off the South West of Crete and includes the Ptolemy seamounts and Ptolemy trench (see Figure 119). This area is subject to seasonal strong upwelling which greatly increases primary productivity. In addition to these seasonal patterns, the area is also subject to the Cretan current (Cretan Cyclone) and to the Levantine surface current. Longline fisheries for pelagic species such as albacore tuna (*Thunnus alalunga*) and swordfish (*Xiphias gladius*) are very active and put intense fishing pressure on this area. Longlining has high incidental bycatch on blue sharks (*Prionace glauca*) which have a relatively high abundance in this area. Furthermore, there is a permanent population of the vulnerable Sperm whale (*Physeter macrocephalus*) and of the Cuvier's Beaked Whale (*Ziphius cavirostris*). These permanent large whale populations highlight the high productivity of this area since they require very large amounts of prey such as squid.

Depth Range	Approx. 1000-2000m
Jurisdictional status	Greece Territorial waters
Location (centroid)	Latitude: 34° 32,633' N Longitude: 24° 17,904' E
MedNet Proposal	YES
MEOW	Aegean Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Physeter macrocephalus</i> <i>Prionace glauca</i> <i>Thunnus alalunga</i> <i>Xiphias gladius</i> <i>Ziphius cavirostris</i>	Gyres Seamount communities Sharks Upwelling areas Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																	
	No information	Low	Medium	High																														
Uniqueness or rarity																																		
Special importance for life-history stages of species																																		
Importance for threatened, endangered or declining species and/or habitats			X																															
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spp	CITES	CMS_BONNconv	SPA/BD Protocol	IUCN Red List (*)																														
<i>Physeter macrocephalus</i>	Appendix I	Appendix I and II	Annex II	VU EN (Med)																														
<i>Prionace glauca</i>			Annex III	NT/VU (Med)																														
<i>Thunnus alalunga</i>				DD																														
<i>Xiphias gladius</i>			Annex III	NT (Med)																														
<i>Ziphius cavirostris</i>	Appendix II		Annex II	LC																														
Vulnerability, fragility, sensitivity, or slow recovery	X																																	
Biological productivity																																		
Biological diversity	X																																	
Naturalness																																		

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

28. GLAVKI AND VENUS BANKS

Description and key species

This area is located within the North part of the Aegean Sea (see Figure 120). It includes two banks which are important because of the presence of large predators such as the blue shark (*Prionace glauca*), the swordfish (*Xiphias gladius*) and especially because it is within the distribution range of the monk seal (*Monachus monachus*). In addition to these threatened species, the site harbors cold water corals (*Lophelia pertusa* and *Madrepora oculata*) which are threatened by bottom trawling fishing that takes place in this area. Corals occurrence is likely related to the circulation patterns regime in the area (see Figure 121). Long line fishing is also a concern as it has high blue shark bycatch rates. It is considered a spawning area for pelagic fishes like *Xiphias gladius*, *Euthynnus alletteratus* or *Auxis rochei* (Vassilopoulou *et al.*, 2008).

Depth Range	Approx. 100-400 m
Jurisdictional status	Greece Territorial waters
Location (centroid)	Latitude: 39° 39,004' N Longitude: 24° 34,305' E
MedNet Proposal	YES
MEOW	Aegean Sea

KEY SPECIES		Features to be protected according CBD examples
<i>Auxis rochei</i>	<i>Monachus monachus</i>	Cold water coral reefs
<i>Euthynnus alletteratus</i>	<i>Prionace glauca</i>	Seamount communities
<i>Lophelia pertusa</i>	<i>Xiphias gladius</i>	Sharks
<i>Madrepora oculata</i>		

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																	
	No information	Low	Medium	High																														
Uniqueness or rarity																																		
Special importance for life-history stages of species																																		
Importance for threatened, endangered or declining species and/or habitats				X																														
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																														
<i>Lophelia pertusa</i>	Appendix II		Annex II																															
<i>Madrepora oculata</i>	Appendix II		Annex II																															
<i>Monachus monachus</i>	Appendix I	Appendix I and II	Annex II	CR																														
<i>Prionace glauca</i>			Annex III	NT/VU (Med)																														
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Naturalness																																		

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 120. Location of Glavki and Venus banks

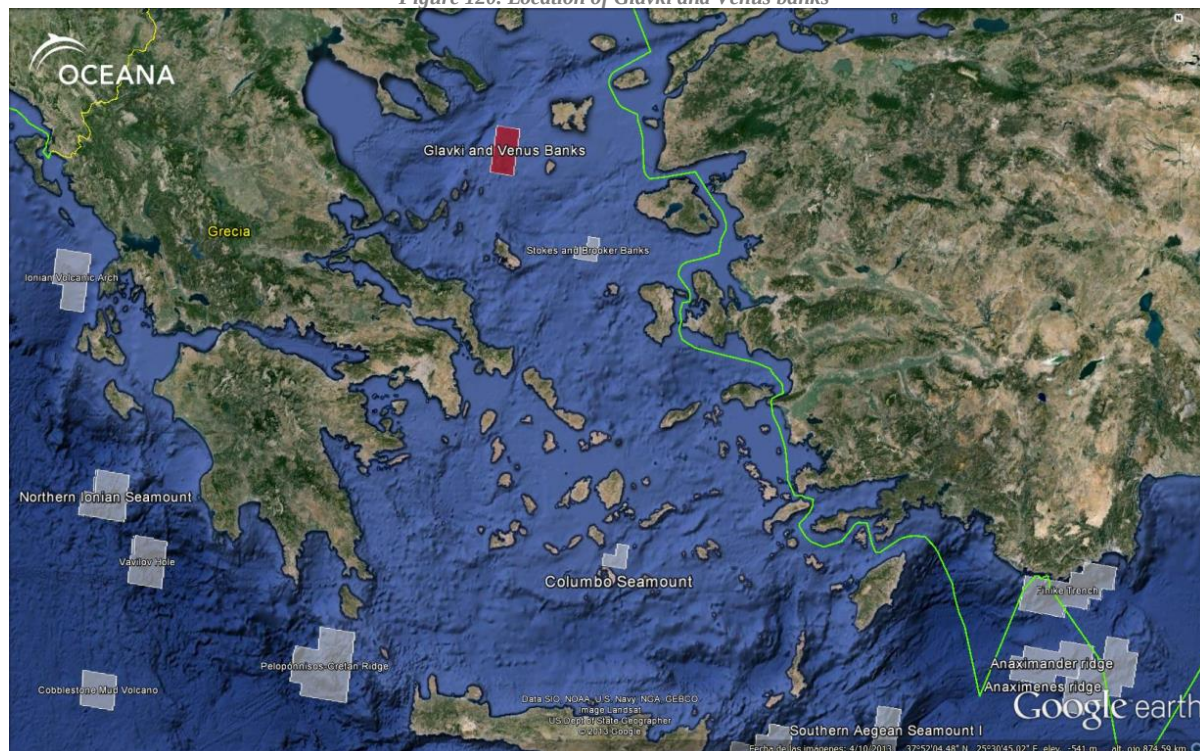
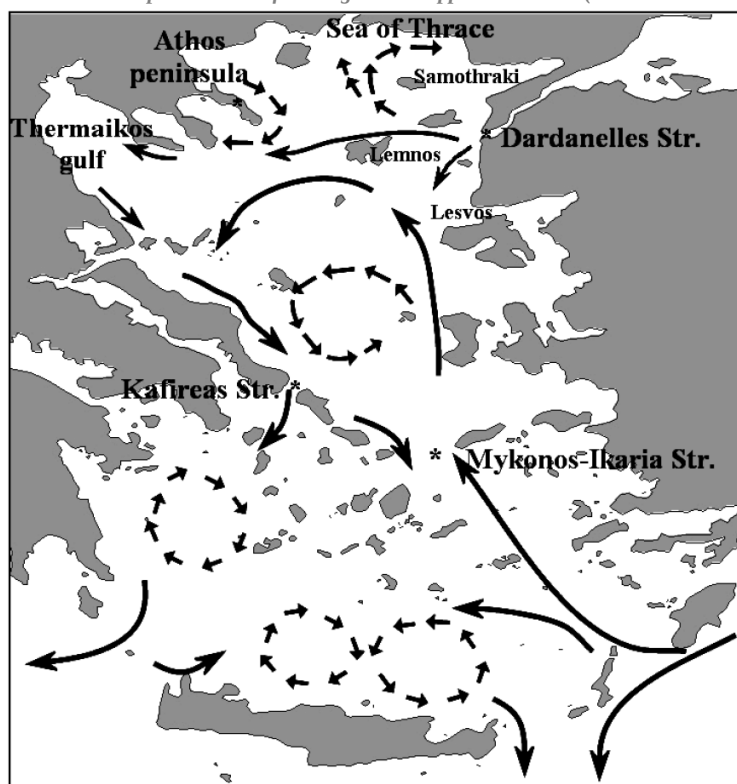


Figure 121. Schematic representation of the Aegean Sea upper circulation (Nittis and Perivoliotis, 2002)



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29. COLUMBO SEAMOUNT

Description and key species

This underwater volcano is situated on the Santorini-Amorgos volcano complex (see Figure 122). It has a 500m deep caldera which rises up to -17 meters, making it reachable for divers and therefore at threat from tourist exploitation. It is also placed on important international shipping routes which is an additional threat to the area. The seamount is located on an area of high seismic activity (see Figure 123) with an underwater explosion reported in 1650 A.D. Scientists are currently attempting to assess the risk of eruption. On the biological side, the Aegean Sea is an area of high relative abundance of large pelagics and sharks including species such as the bluefin tuna (*Thunnus thynnus*). There is an important longline fishery for swordfish (*Xiphias gladius*) which results in high bycatch rates of blue sharks (*Prionace glauca*). This area is also part of the distribution range of the monk seal (*Monachus monachus*) which can be threatened by the aforementioned maritime traffic and the tourism activity.

Depth Range	Approx. 100-400m
Jurisdictional status	Greece Territorial waters
Location (centroid)	Latitude: 36° 32,581' N Longitude: 25° 30,734' E
MedNet Proposal	YES
MEOW	Aegean Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Monachus monachus</i> <i>Prionace glauca</i> <i>Thunnus thynnus</i> <i>Xiphias gladius</i>	Gas hydrates Highly migratory fish Seamount communities

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																												
	No information	Low	Medium	High																									
Uniqueness or rarity																													
Special importance for life-history stages of species																													
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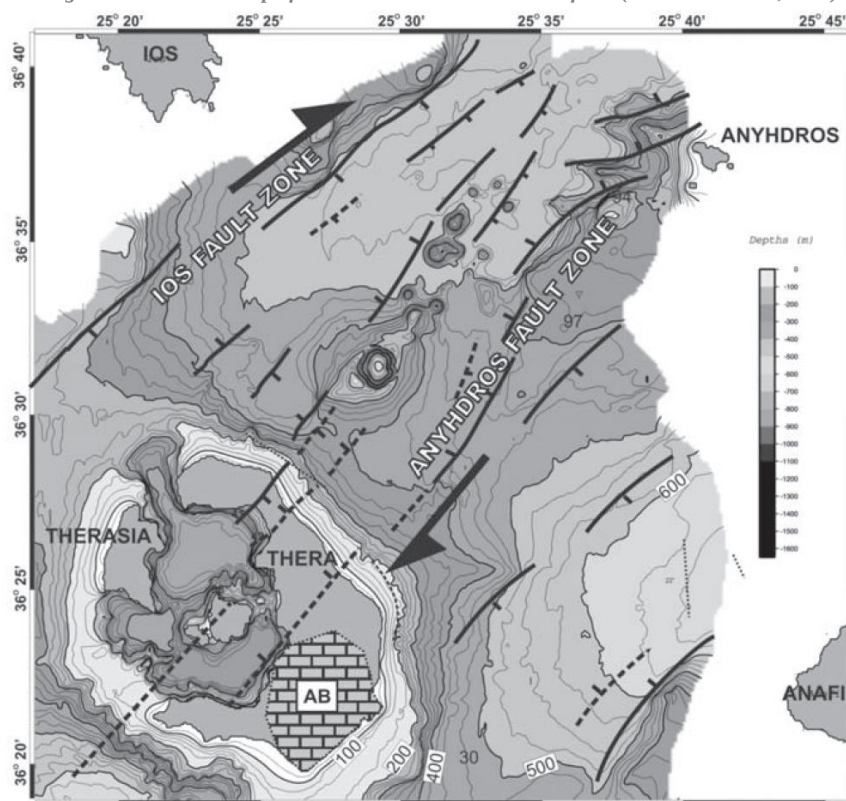
(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 122. Location of the Columbo seamount



Figure 123. Tectonic map of Santorini – Kolumbo volcanic field. (Sakellariou et al., 2010)



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30. SOUTHERN AEGAN SEAMOUNT

Description and key species

In the Southern Aegean Sea, this unnamed seamount concentrates (see Figure 124) an important biodiversity and a relatively high abundance of pelagic species, due to its significant oceanic features. Indeed, dense waters form in this area under the influence of the Rhodes Cyclonic Gyre and the Asia Minor Current (AMC). Furthermore, driven by strong upwelling, the waters are rich in cephalopods, clupeids and scombriforms eggs and larvae. These biologically abundant waters attract many species including bluefin tuna (*Thunnus thynnus*), sperm whale (*Physeter macrocephalus*), Cuvier's Beaked whale (*Ziphius cavirostris*), sharks (*Prionace glauca*) and the monk seal (*Monachus monachus*). Other small pelagics as well as swordfish (*Xiphias gladius*) are attracted by the biological productivity of this area. Many of these species are highly migratory which makes this site of high importance for a network of open ocean protected areas.

Depth Range	Approx. 800-3000m
Jurisdictional status	Greece Territorial waters
Location (centroid)	Latitude: 35° 5,687' N Longitude: 27° 57,961' E
MedNet Proposal	YES
MEOW	Aegean Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Monachus monachus</i> <i>Physeter macrocephalus</i> <i>Prionace glauca</i> <i>Thunnus thynnus</i> <i>Xiphias gladius</i> <i>Ziphius cavirostris</i>	Gyres Highly migratory fish Sharks Upwelling areas Whales and other cetaceans

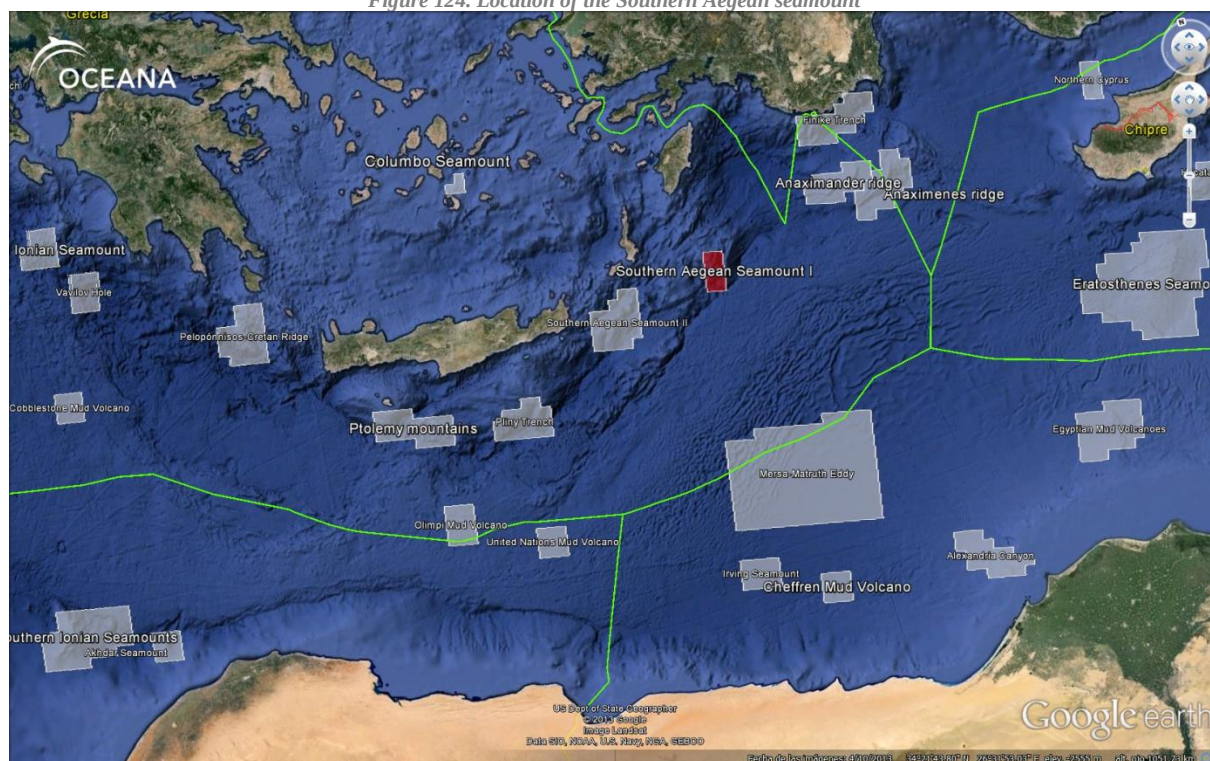
Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																						
	No information	Low	Medium	High																																			
Uniqueness or rarity																																							
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																																			
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Vulnerability, fragility, sensitivity, or slow recovery																																							
Biological productivity	X																																						
Biological diversity	X																																						
Naturalness																																							

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 124. Location of the Southern Aegean seamount



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31. CHEFFREN MUD VOLCANO

Description and key species

Located off the Coast of Egypt (see Figure 125), this mud volcano is part of a region with many important geomorphological features (see Figure 126). Mud volcanos are unique structures and used to harbor rare biological communities. The area is situated on the distribution range of the loggerhead turtle (*Caretta caretta*) and the green turtle (*Chelonia mydas*). The biological information is very scarce, but the presence of peculiar microbial communities has been proven (see Figure 127). The area is covered by gas structures like pockmarks and mud volcanoes (Huguen *et al.*, 2009) (see Figure 128). Cheffren mud volcano maybe also associated with the formation of eddies (Mersa-Matruth anticyclonic eddy) and is located close to the Mid-Mediterranean jet current path. This area is particularly threatened by oil and gas exploration and drilling.

Depth Range	Approx. 2500-3000m
Jurisdictional status	Egypt Territorial waters
Location (centroid)	Latitude: 32° 2,228' N Longitude: 28° 9,851' E
MedNet Proposal	YES
MEOW	Levantine Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Caretta caretta</i> <i>Chelonia mydas</i>	Cold seeps Gas hydrates Gyres

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																		
	No information	Low	Medium	High															
Uniqueness or rarity	X																		
Special importance for life-history stages of species																			
Importance for threatened, endangered or declining species and/or habitats																			
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spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)															
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN															
<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN															
Vulnerability, fragility, sensitivity, or slow recovery																			
Biological productivity																			
Biological diversity																			
Naturalness																			

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 125. Location of the Cheffren mud volcano

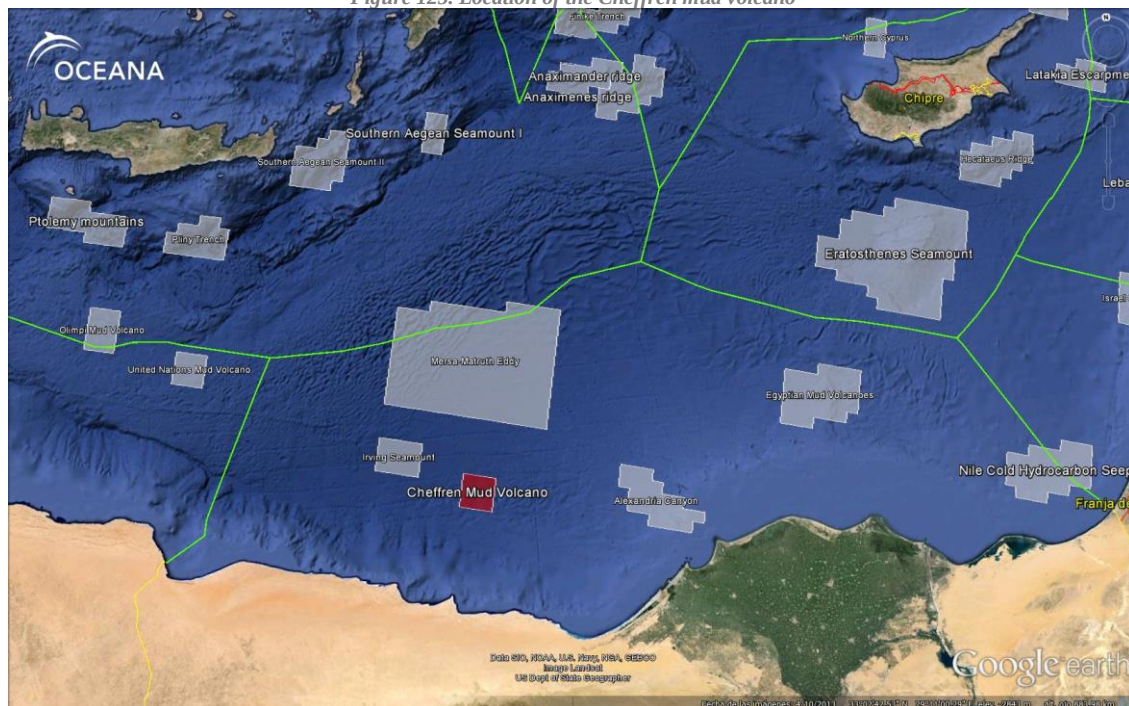


Figure 126. (A) Bathymetric map of the Nile Deep Sea Fan. The circle indicates the position of the Menes Caldera (B) Bathymetric map of the Menes Caldera with its three mud volcano systems. (C) Bathymetric map of the Cheffren mud volcano (Omorgie, 2008).

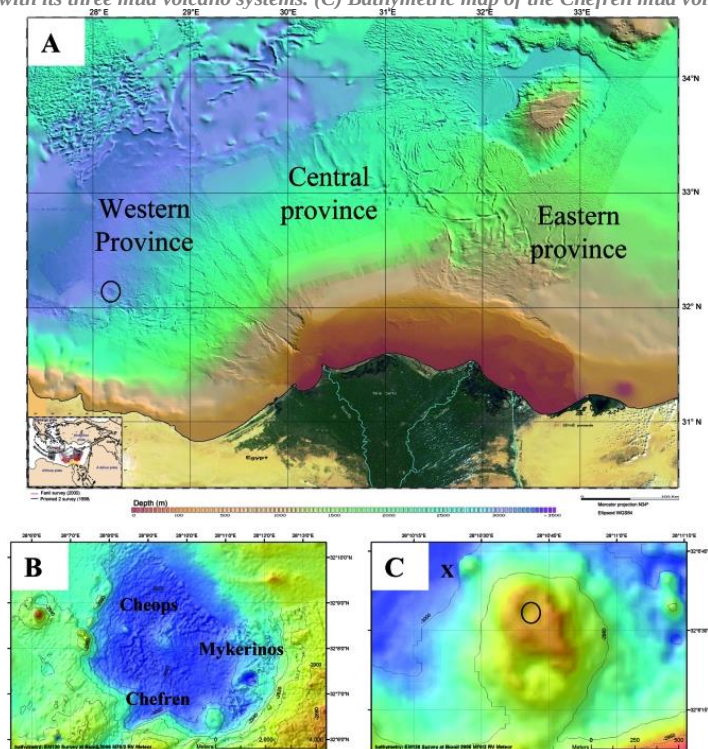


Figure 127. Microbial mat system of the brine-impacted seep at the rim of the Chefren mud volcano (Omorie, 2008)

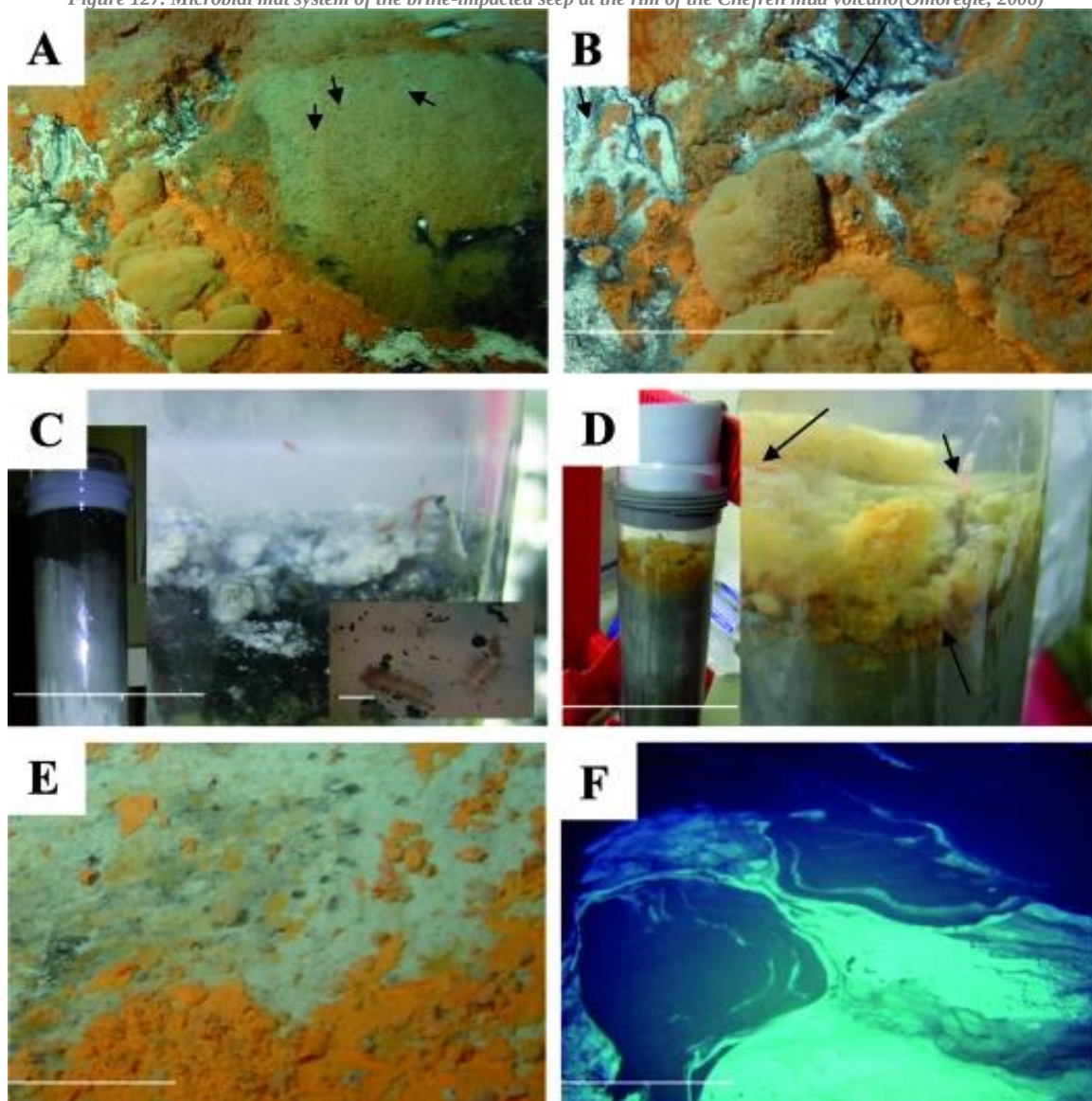
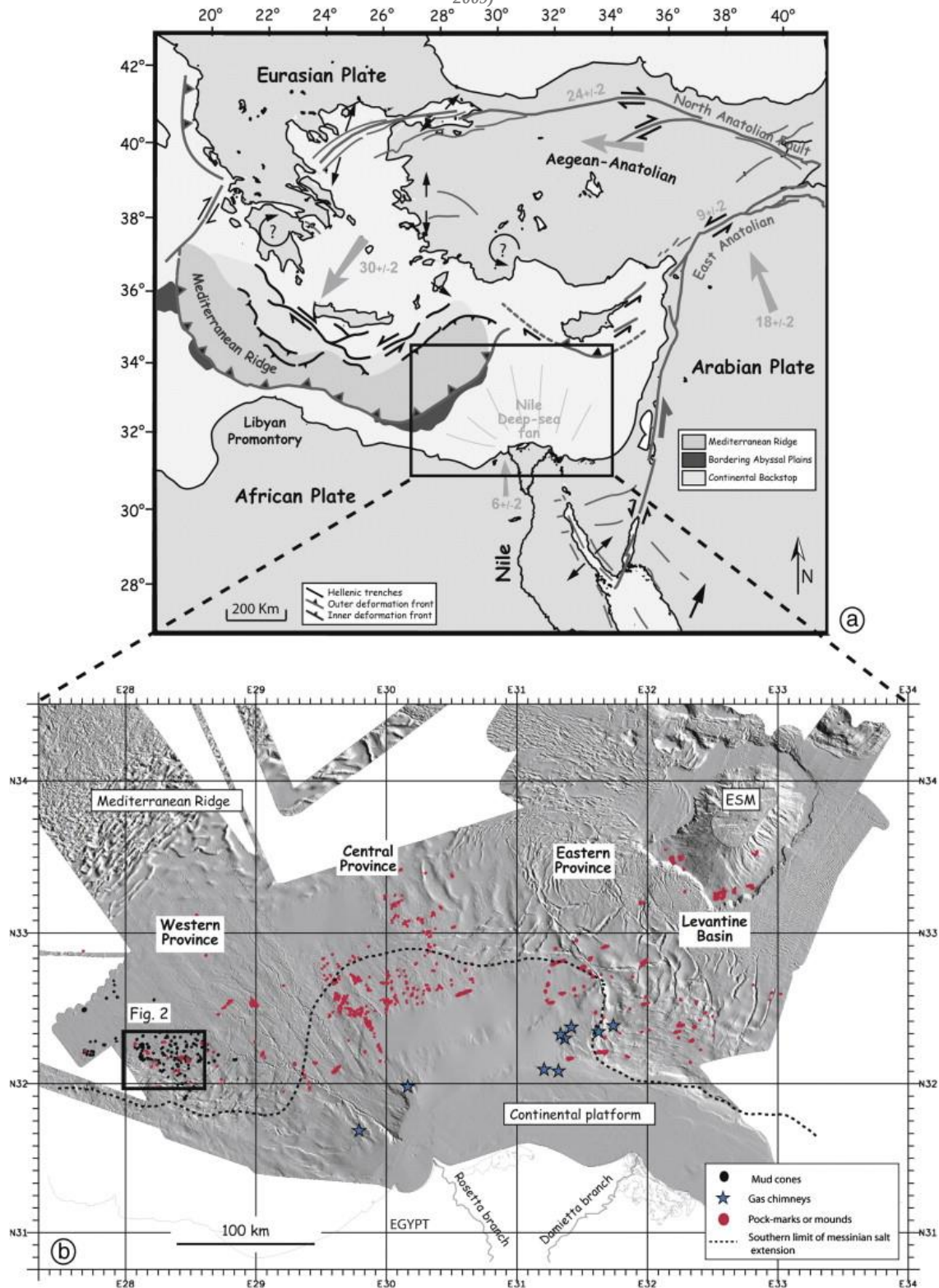


Figure 128. Morphostructural provinces and different types of fluid escape structures in the Eastern Mediterranean basin (Huguen, 2009)



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32. ANAXIMANDER AND ANAXIMENES RIDGES

Description and key species

Off the South coast of Turkey (see Figure 129), the area includes two large underwater elevations which rise from depth of around 2000-2500m to depths of 1200m (Anaximander) and 700m (Anaximenes). These ridges are linked with several mud volcanos (see Figure 130) hosting a recently finding new species of lamellibrachiid vestimentiferan, (*Lamellibrachia anaximandri*) and many other organisms (Olu-Le Roy *et al.*, 2004) including a new mollusc community associated with a cold seep (Salas & Woodside, 2002). Their particular geomorphology and size make them an important place which potentially supports high biodiversity. Due to the existing upwelling, these waters are rich in cephalopods, clupeid and scombriform (eggs and larvae). However, the biological information on deep-water benthic communities is very scarce. It is known a high relative abundance of large migratory fish and cetaceans in the area which is also used by the bluefin tuna (*Thunnus thynnus*) as spawning ground (see Figure 131). Other pelagic species such as swordfish (*Xiphias gladius*) is targeted by longliners with a high percentage of shark (*Prionace glauca*) bycatch (see Figure 132). In fact, Anaximander seamount have been described as an important spawning area for *Xiphias gladius* in the Mediterranean (Tserpes *et al.*, 2008), although it seems to be also a feeding area for beaked whales (Woodsie *et al.*, 2006).

Depth Range	Approx. 700-2500m
Jurisdictional status	Greece /Turkey Territorial waters
Location (centroid)	Latitude: 35° 24,471' N Longitude: 29° 51,705' E
MedNet Proposal	YES
MEOW	Aegean Sea and Levantine Sea

KEY SPECIES	Features to be protected according CBD examples
Cetacea Prionace glauca Thunnus thynnus Xiphias gladius Ziphius cavirostris Lucinoma kazani	Carbonate mounds Cold seeps Gas hydrates Highly migratory fish Seamount communities Upwelling areas Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																	
	No information	Low	Medium	High																														
Uniqueness or rarity																																		
Special importance for life-history stages of species																																		
Spawning ground for bluefin tuna																																		
Importance for threatened, endangered or declining species and/or habitats			X																															
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td>Cetacea</td><td>Appendix II</td><td></td><td></td><td></td></tr> <tr> <td>Prionace glauca</td><td></td><td></td><td>Annex III</td><td>NT/VU (Med)</td></tr> <tr> <td>Thunnus thynnus</td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> <tr> <td>Xiphias gladius</td><td></td><td></td><td>Annex III</td><td>NT (Med)</td></tr> <tr> <td>Ziphius cavirostris</td><td>Appendix II</td><td></td><td>Annex II</td><td>LC</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	Cetacea	Appendix II				Prionace glauca			Annex III	NT/VU (Med)	Thunnus thynnus			Annex III	EN/EN (Med)	Xiphias gladius			Annex III	NT (Med)	Ziphius cavirostris	Appendix II		Annex II	LC
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																														
Cetacea	Appendix II																																	
Prionace glauca			Annex III	NT/VU (Med)																														
Thunnus thynnus			Annex III	EN/EN (Med)																														
Xiphias gladius			Annex III	NT (Med)																														
Ziphius cavirostris	Appendix II		Annex II	LC																														
Vulnerability, fragility, sensitivity, or slow recovery																																		
Biological productivity																																		
Biological diversity																																		
Naturalness																																		

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 129. Location of the Anaximander and Anaximenes ridges

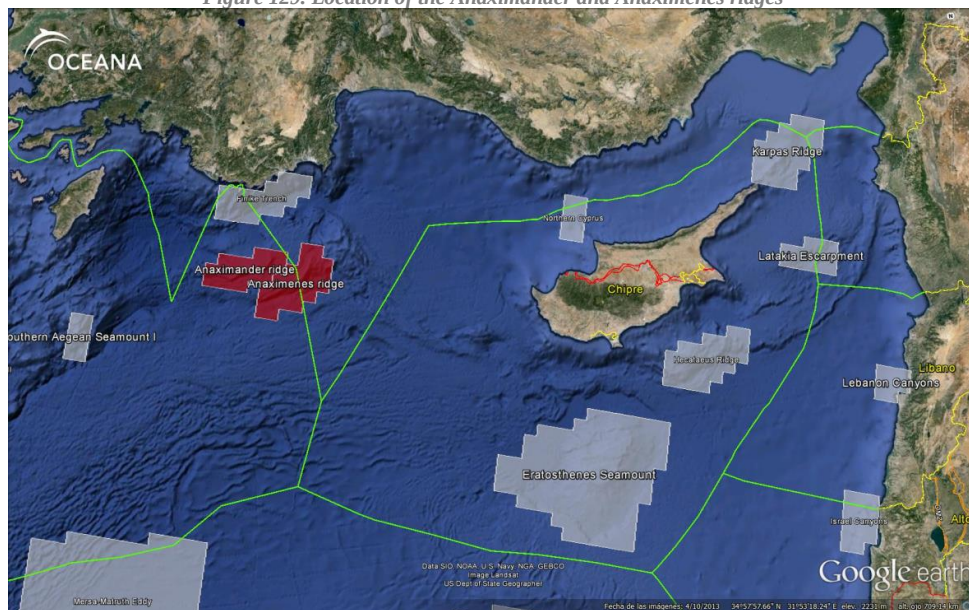


Figure 130. a Location of the Anaximander Mountains region (AM), the Olimpi mud volcano field (OMV), and the Nile deep-sea fan including the Isis mud volcano (Isis MV) in the Eastern Mediterranean Sea. Main tectonic features are displayed as well. b Bathymetric map of the Anaximander Mountains region illustrating extensions of the Anaximander, Anaximenes, and Anaxagoras seamounts (SM), as well as positions of major mud volcanoes (MV, dots). The Amsterdam MV is located on the southeastern flank of the Anaximenes seamounts (Pape et al, 2010)

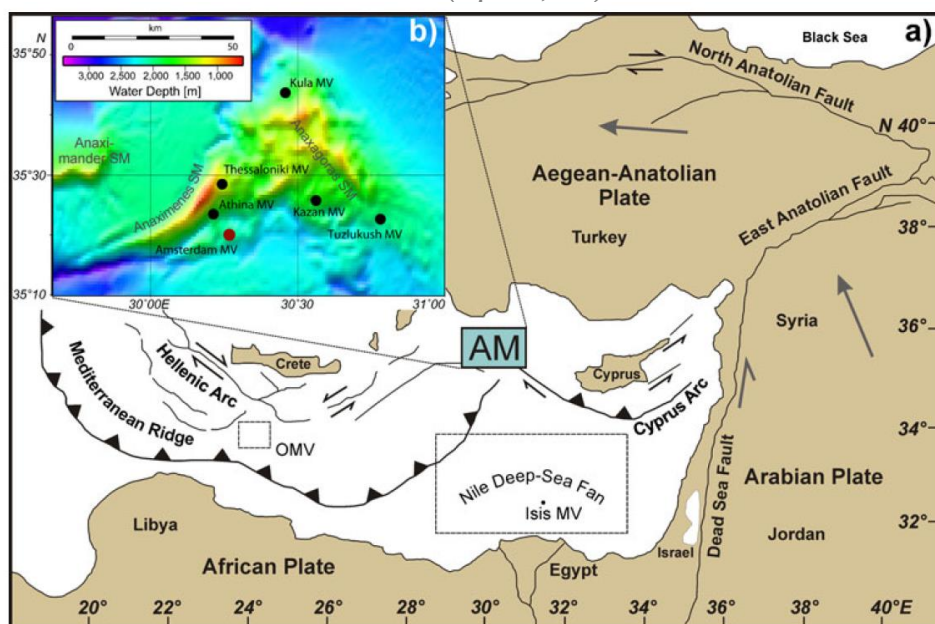


Figure 131. Spawning areas of *Thunnus thynnus* identified through analysis of VMS data used in the 2010 GBYP aerial survey program for surveying spawning biomass in the Mediterranean. These areas are consistent with current scientific knowledge of the main spawning locations. (ICCAT, 2010)

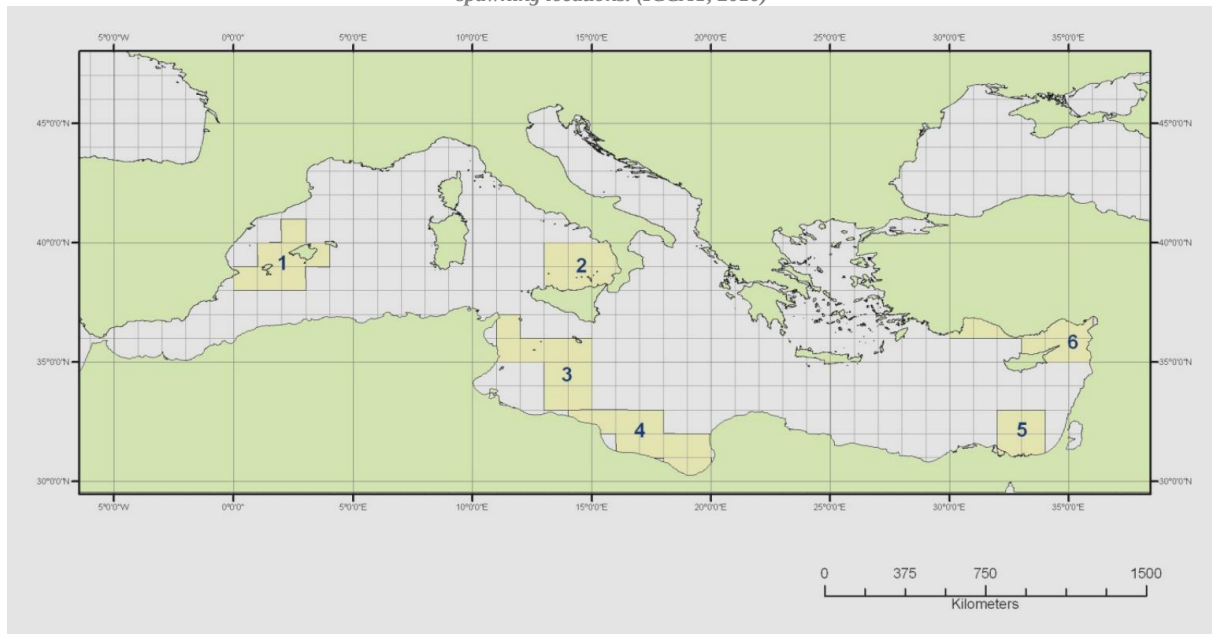
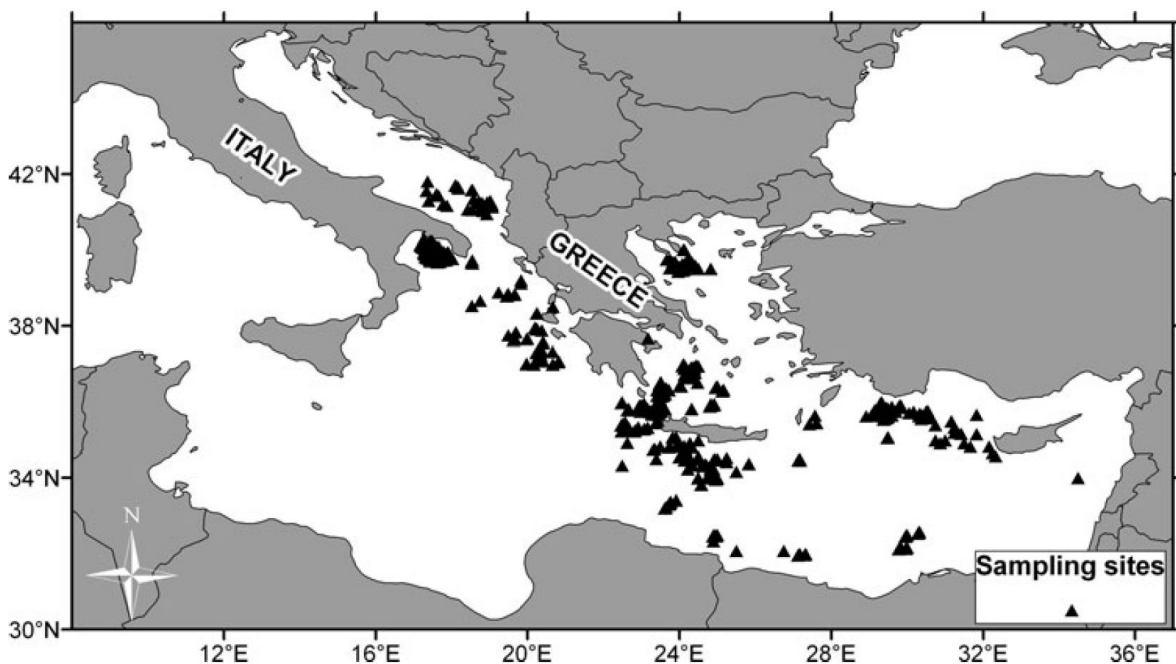


Figure 132. Map showing the areas used for sampling blue shark, *Prionace glauca* from the swordfish longline fishery, during 1998–2003 in the Mediterranean Sea (Adriatic Sea, Ionian Sea, Aegean Sea and Levantine basin). Sampling sites are indicated as black triangles (Megalofonou et al, 2009).



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33. ERATOSTHENES SEAMOUNT

Description and key species

Located in the middle of the Levantine Sea, off South coast of Cyprus (see Figure 133), it is one of the largest features in the Mediterranean Sea (~80x100 km). It rises to a depth of 690 meters (highest point of plateau) from a surrounding abyss of over 2000m. It is likely linked to mesoscale currents and its benthic biodiversity, with vermetid worms, is probably dependant on cold seeps occurrence (chemosynthetic communities). The benthic domain harbors fragile habitats such as black corals and stony corals (*Caryophyllia calveri*, *Desmophyllum dianthus* - first live records from the Levant Basin which significantly extended the species' depth ranges). Also slow maturing fish species occurs there such as the Mediterranean slimehead (*Hoplostethus mediterraneus*). In addition to the demersal community, green and loggerhead turtles (*Chelonia mydas* and *Caretta caretta*) frequently use the area in their migratory path. This seamount is also highly significant because numerous demersal targeted species are caught there such as deep water shrimps (*Aristaeomorpha foliacea*, *Aristeus antennatus*). Given the occurrence of Vulnerable Marine Ecosystems, the area was designated as a Fishing Restricted Area (FRA) by GFCM to avoid impact of deep-sea bottom trawling fisheries. All these fragile habitats are currently threatened by oil and gas drilling industry⁹.

Depth Range	Approx. 650-2000m
Jurisdictional status	Cyprus Territorial waters
Location (centroid)	Latitude: 33° 38,884' N Longitude: 32° 33,804' E
MedNet Proposal	YES
MEOW	Levantine Sea

KEY SPECIES		Features to be protected according CBD examples
<i>Aristaeomorpha foliacea</i>	<i>Chelonia mydas</i>	Gyres
<i>Aristeus antennatus</i>	<i>Desmophyllum dianthus</i>	Sea turtles
<i>Bathypterois spp</i>	<i>Etmopterus spinax</i>	Seamount communities
<i>Caretta caretta</i>	<i>Galeus melastomus</i>	
<i>Caryophyllia calveri</i>	<i>Hoplostethus mediterraneus</i>	
<i>Chalinura mediterranea</i>	<i>Plesionika martia</i>	

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																												
	No information	Low	Medium	High																									
Uniqueness or rarity																													
<i>The biggest seamount in the Mediterranean Sea</i>																													
Special importance for life-history stages of species																													
Importance for threatened, endangered or declining species and/or habitats				X																									
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Caretta caretta</i></td><td>Appendix I</td><td>Appendix I</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Caryophyllia calveri</i></td><td>Appendix II</td><td></td><td></td><td></td></tr> <tr> <td><i>Chelonia mydas</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Desmophyllum dianthus</i></td><td>Appendix II</td><td></td><td></td><td></td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Caryophyllia calveri</i>	Appendix II				<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN	<i>Desmophyllum dianthus</i>	Appendix II			
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																									
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																									
<i>Caryophyllia calveri</i>	Appendix II																												
<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN																									
<i>Desmophyllum dianthus</i>	Appendix II																												

⁹ Exploring and drilling for hydrocarbons must be stopped in unique and fragile mediterranean deep sea. URL: <http://oceana.org/en/eu/media-reports/press-releases/exploring-and-drilling-for-hydrocarbons-must-be-stopped-in-unique-and-fragile-mediterranean-deep>

(*) **IUCN Red List categories:** Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Figure 133. Location of the Eratosthenes seamount



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34. NILE COLD HYDROCARBON SEEPS

Description and key species

Located in offshore North Sinai, the occurrence of gas hydrocarbon seeps (see Figure 135) harboring chemosymbiotic communities has been documented (see Figure 136). In this area of cold seeps, new species of mollusc and polychaetes have been recently described, like the vestimentiferan *Lamellibranchia anaximandri* (Southward *et al.*, 2011) or the Amphinomid *Cryptonome conclava* (Borda *et al.*, 2012). The area is influenced by the Libyo-Egyptian current which commonly hosting pelagic species, in fact, it is one of the most important habitats for marine turtles (*Caretta caretta*, *Chelonia mydas*). The coasts of the Sinai Peninsula are commonly used as nesting areas by those species. However, despite to be endangered species, a high pressure from human activities (bycatch, black market) exists which are jeopardizing the population. The area is also likely habitat for the common dolphin (*Delphinus delphis*). Furthermore, this region is also a known spawning area for bluefin tuna (*Thunnus thynnus*) (see Figure 137). The area has been designated as FRA under GFCM because of the cold seeps occurrence (Vulnerable Marine Ecosystems), and according to that bottom trawling activities are forbidden. However, according to the last assessment of the FRAs, there is a lack of enforcement in the area.

Depth Range	Approx. 100-800m
Jurisdictional status	Egypt and Israel Territorial waters
Location (centroid)	Latitude: 31° 42,314' N Longitude: 33° 40,139' E
MedNet Proposal	YES
MEOW	Levantine Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Caretta caretta</i> <i>Chelonia mydas</i> <i>Delphinus delphis</i> <i>Lamellibranchia anaximandri</i> <i>Cryptonome spp.</i> <i>Thunnus thynnus</i>	Cold seeps Highly migratory fish Sea turtles Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																												
	No information	Low	Medium	High																									
Uniqueness or rarity				X																									
Cold seeps occurrence																													
Special importance for life-history stages of species				X																									
Spawning ground for bluefin tuna and nesting areas in the coast for marine turtles																													
Importance for threatened, endangered or declining species and/or habitats				X																									
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Caretta caretta</i></td><td>Appendix I</td><td>Appendix I</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Chelonia mydas</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Delphinus delphis</i></td><td>Appendix II</td><td>Appendix I and II</td><td>Annex II</td><td>LC/EN (Med)</td></tr> <tr> <td><i>Thunnus thynnus</i></td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN	<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)	<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																									
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																									
<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN																									
<i>Delphinus delphis</i>	Appendix II	Appendix I and II	Annex II	LC/EN (Med)																									
<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)																									
Vulnerability, fragility, sensitivity, or slow recovery				X																									
Chemosymbiotic communities as Vulnerable Marine Ecosystems																													
Biological productivity																													
Biological diversity																													
Naturalness																													

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 134. Location of the Nile Cold Hydrocarbon seeps

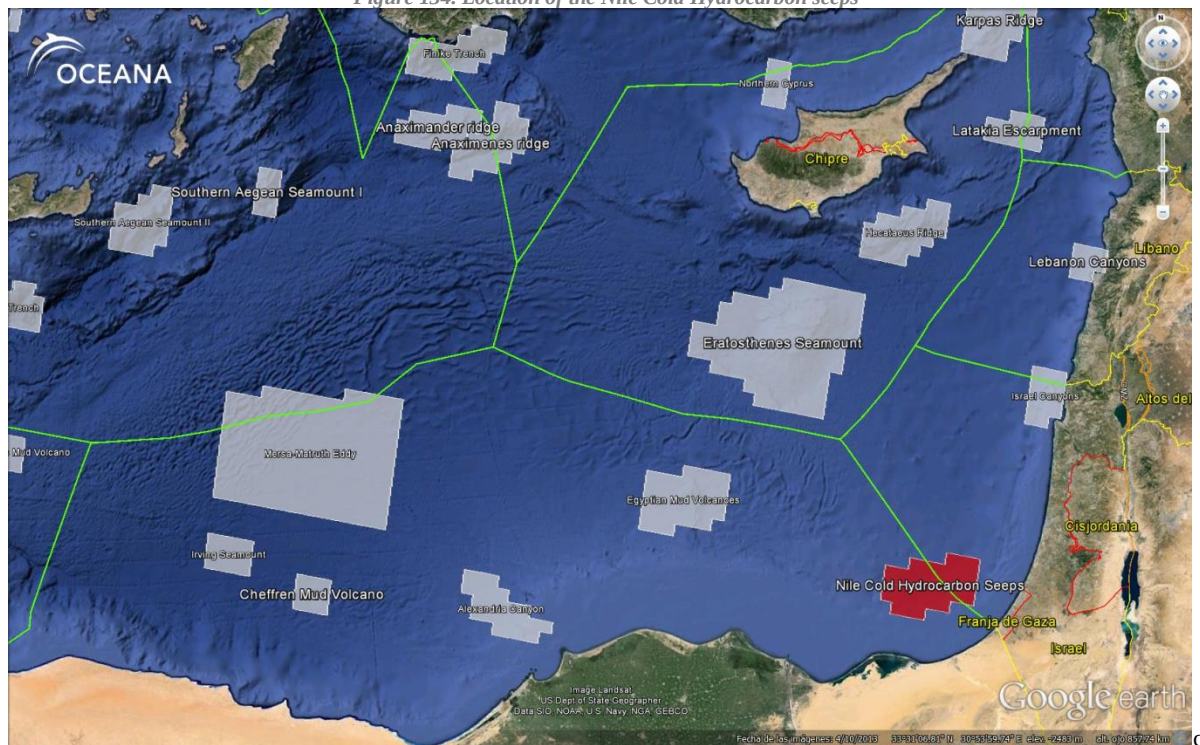


Figure 135. Seep buildup emitting gas bubbles in the Nile delta. The chemoherm cone is about 0.5m in diameter at its base

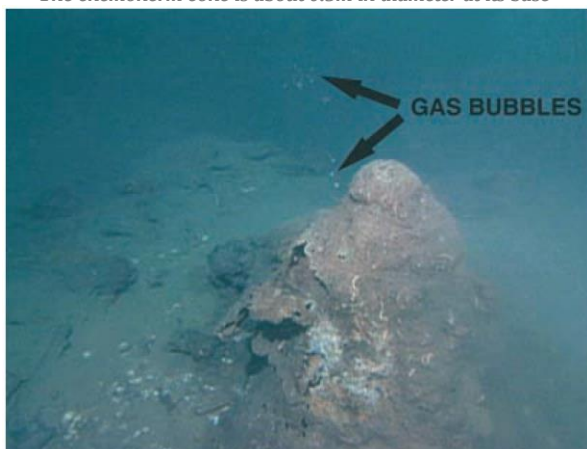


Figure 136. Living polychaete and clam communities off the Nile delta



Figure 137. Spawning areas of *Thunnus thynnus* identified through analysis of VMS data used in the 2010 GBYP aerial survey program for surveying spawning biomass in the Mediterranean. These areas are consistent with current scientific knowledge of the main spawning locations. (ICCAT, 2010)

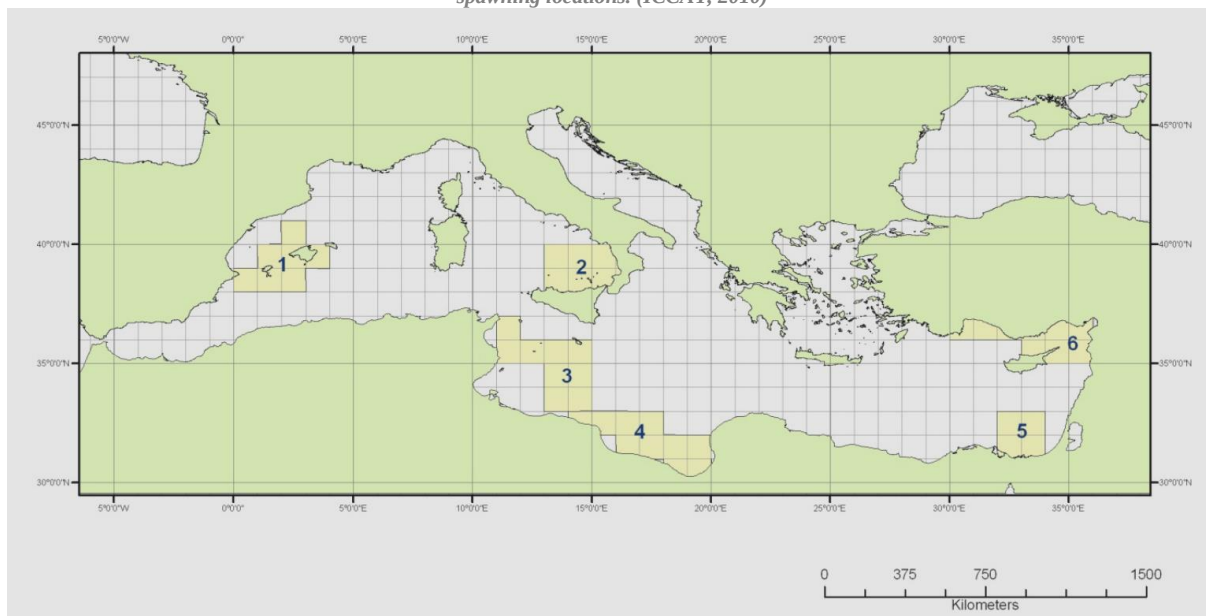
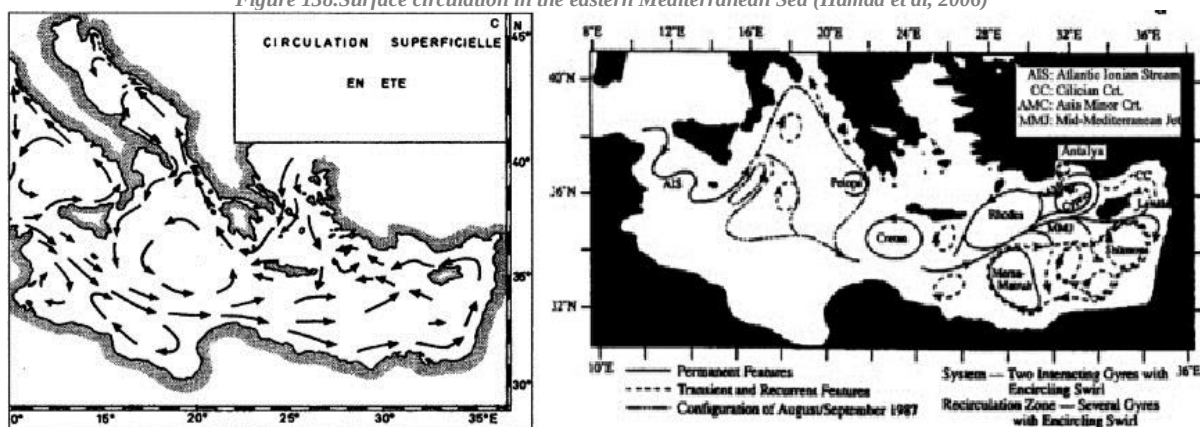


Figure 138. Surface circulation in the eastern Mediterranean Sea (Hamad et al, 2006)



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35. LEBANON CANYONS

Description and key species

This area includes three important features of the Levantine Sea: the Beirut Escarpment, the Saint-George canyon and the Junieh Canyon (see Figure 139). According to the submarine canyons dynamic, it is highly probable that they intervene in the mesoscale circulation in the Levantine Sea. It is also important to note that there is a relatively high abundance of sharks in this region. However, this area is particularly significant because it is considered as nursery ground for the common guitarfish (*Rhinobatos rhinobatos*). Regarding cetaceans, the common bottlenose dolphin (*Tursiops truncatus*) has been recorded in the area (see Figure 140). There is a lack of basic knowledge in the area, although due to the existence of several canyons, cold water corals and other vulnerable marine ecosystems are likely to occur. However, marine environment is constantly threatened by oil/gas drilling activity.

Depth Range	Approx. 100-2000m
Jurisdictional status	Lebanon Territorial waters
Location (centroid)	Latitude: 33° 59,894' N Longitude: 35° 27,410' E
MedNet Proposal	YES
MEOW	Levantine Sea

KEY SPECIES
Cetacea LARGE PELAGICS - fisheries <i>Rhinobatos rhinobatos</i> <i>Tursiops truncatus</i>

Features to be protected according CBD examples
Canyons Sharks Whales and other cetaceans

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																												
	No information	Low	Medium	High																									
Uniqueness or rarity																													
Special importance for life-history stages of species				X																									
<i>Nursery ground for common guitarfish</i>																													
Importance for threatened, endangered or declining species and/or habitats				X																									
<table border="1"> <thead> <tr> <th colspan="5">C_EBSAworkshop_keySPP</th></tr> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td>Cetacea</td><td>Appendix II</td><td></td><td></td><td></td></tr> <tr> <td><i>Rhinobatos rhinobatos</i></td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> <tr> <td><i>Tursiops truncatus</i></td><td>Appendix II</td><td>Appendix II</td><td>Annex II</td><td>LC/VU (Med)</td></tr> </tbody> </table>					C_EBSAworkshop_keySPP					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	Cetacea	Appendix II				<i>Rhinobatos rhinobatos</i>			Annex III	EN/EN (Med)	<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)
C_EBSAworkshop_keySPP																													
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																									
Cetacea	Appendix II																												
<i>Rhinobatos rhinobatos</i>			Annex III	EN/EN (Med)																									
<i>Tursiops truncatus</i>	Appendix II	Appendix II	Annex II	LC/VU (Med)																									
Vulnerability, fragility, sensitivity, or slow recovery																													
Biological productivity																													
Biological diversity																													
Naturalness																													

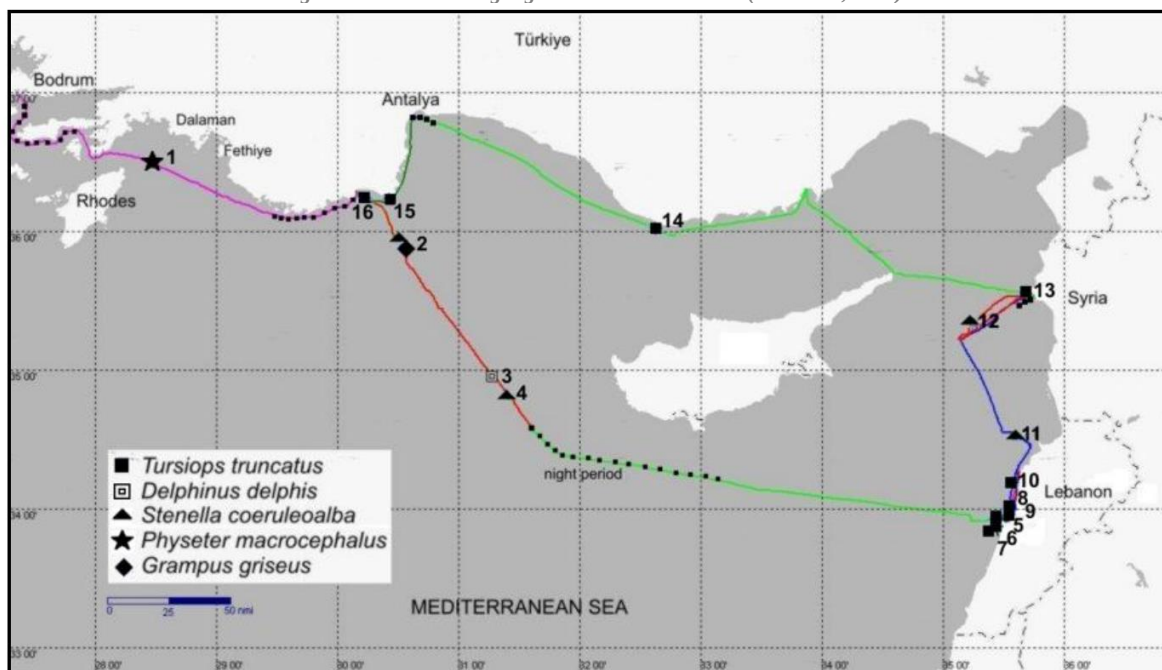
(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 139. Location of the Lebanon canyons



Figure 140. Cetacean sightings in the Levantine Sea (Dede et al, 2012)



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36. LATAKIA ESCARPMENT

Description and key species

Located in the Levantine Sea, between Syria and Cyprus (see Figure 141), the Latakia escarpment is the eastern morphological continuity of the Cyprus arc (see Figure 142). Affected by the recurrently generated Latakia eddy (see Figure 143 and Figure 144), this area is particularly important because of its function as spawning ground for bluefin tuna (*Thunnus thynnus*) (see Figure 145). The Latakia Eddy is mainly cyclonic with higher intensities in summer and fall with occasional weekly or monthly inversions of circulation from cyclonic to anticyclonic triggered by the interaction between the Mid-Mediterranean Jet (MMJ) and the northward coastal meandering current. Other endangered species, such as the loggerhead turtle (*Caretta caretta*) and the green turtle (*Chelonia mydas*) can be also found. The sea bottom has an important geological diversity including rocky outcrops, sedimentary deposits and mud volcanoes (Hübscher et al., 2009).

Depth Range	Approx. 900-1500m
Jurisdictional status	Cyprus and Siria Territorial waters
Location (centroid)	Latitude: 35° 3,402' N Longitude: 34° 57,356' E
MedNet Proposal	YES
MEOW	Levantine Sea

KEY SPECIES	Features to be protected according CBD examples
<i>Caretta caretta</i> <i>Chelonia mydas</i> <i>Thunnus thynnus</i>	Highly migratory fish Sea turtles Gyre Mud volcanoes Submarine canyons

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																							
	No information	Low	Medium	High																				
Uniqueness or rarity																								
Special importance for life-history stages of species																								
Importance for threatened, endangered or declining species and/or habitats																								
<table border="1"> <thead> <tr> <th>spp</th><th>CITES</th><th>CMS</th><th>SPA/BD Protocol</th><th>IUCN Red List (*)</th></tr> </thead> <tbody> <tr> <td><i>Caretta caretta</i></td><td>Appendix I</td><td>Appendix I</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Chelonia mydas</i></td><td>Appendix I</td><td>Appendix I and II</td><td>Annex II</td><td>EN</td></tr> <tr> <td><i>Thunnus thynnus</i></td><td></td><td></td><td>Annex III</td><td>EN/EN (Med)</td></tr> </tbody> </table>					spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)	<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN	<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN	<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)
spp	CITES	CMS	SPA/BD Protocol	IUCN Red List (*)																				
<i>Caretta caretta</i>	Appendix I	Appendix I	Annex II	EN																				
<i>Chelonia mydas</i>	Appendix I	Appendix I and II	Annex II	EN																				
<i>Thunnus thynnus</i>			Annex III	EN/EN (Med)																				
Vulnerability, fragility, sensitivity, or slow recovery																								
Biological productivity																								
Biological diversity																								
Naturalness																								

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EW); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 141. Location of the Latakia escarpment

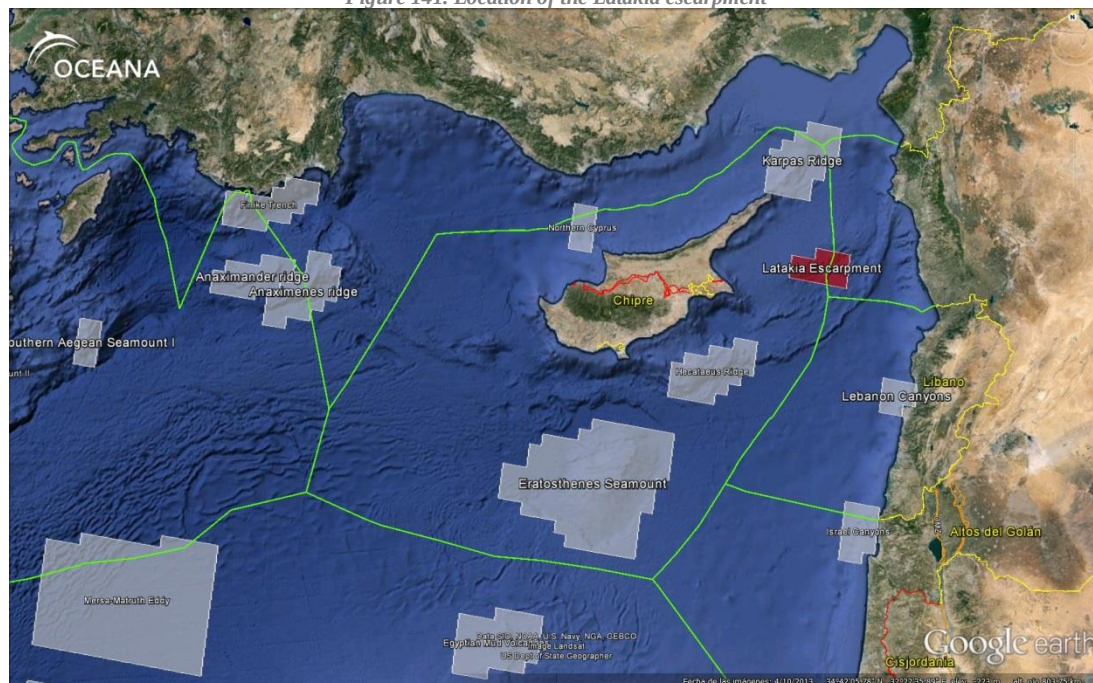


Figure 142. Detailed bathymetry of the Cyprus Basin, Latakia Ridge, Tartus Ridge and Gelendzhik Rise (Hall et al, 2005)

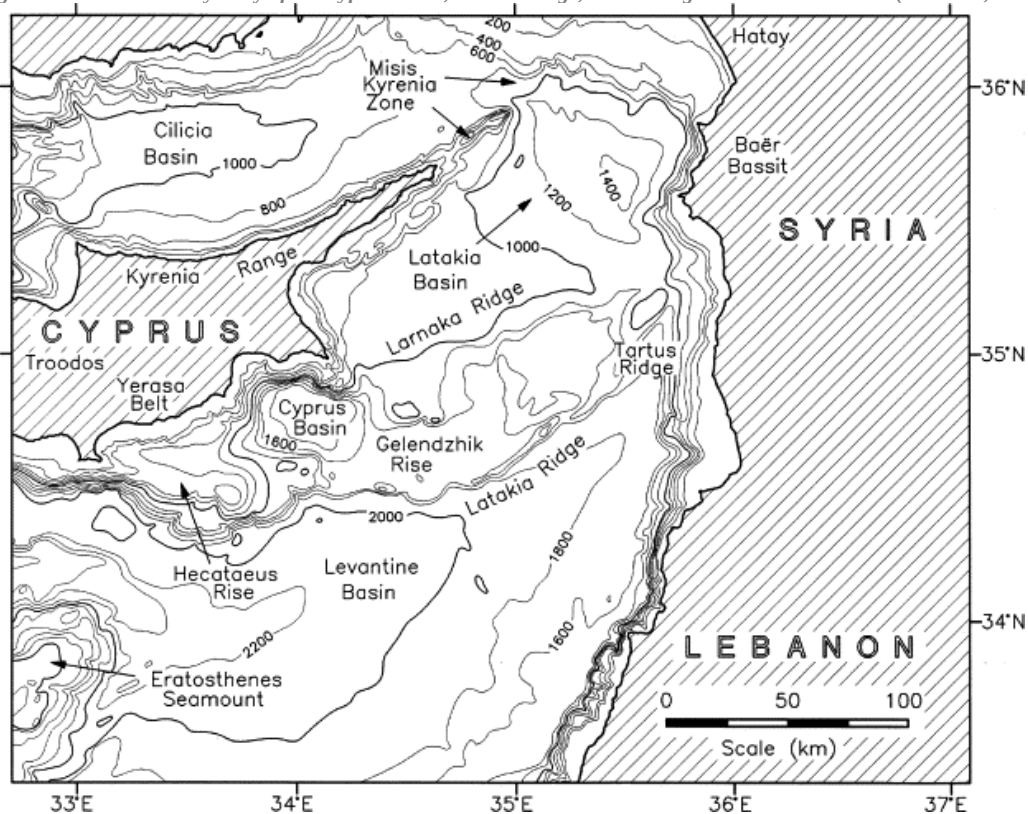


Figure 143. Schematic general circulation in the Eastern Mediterranean Sea (Robinson et al, 1991)

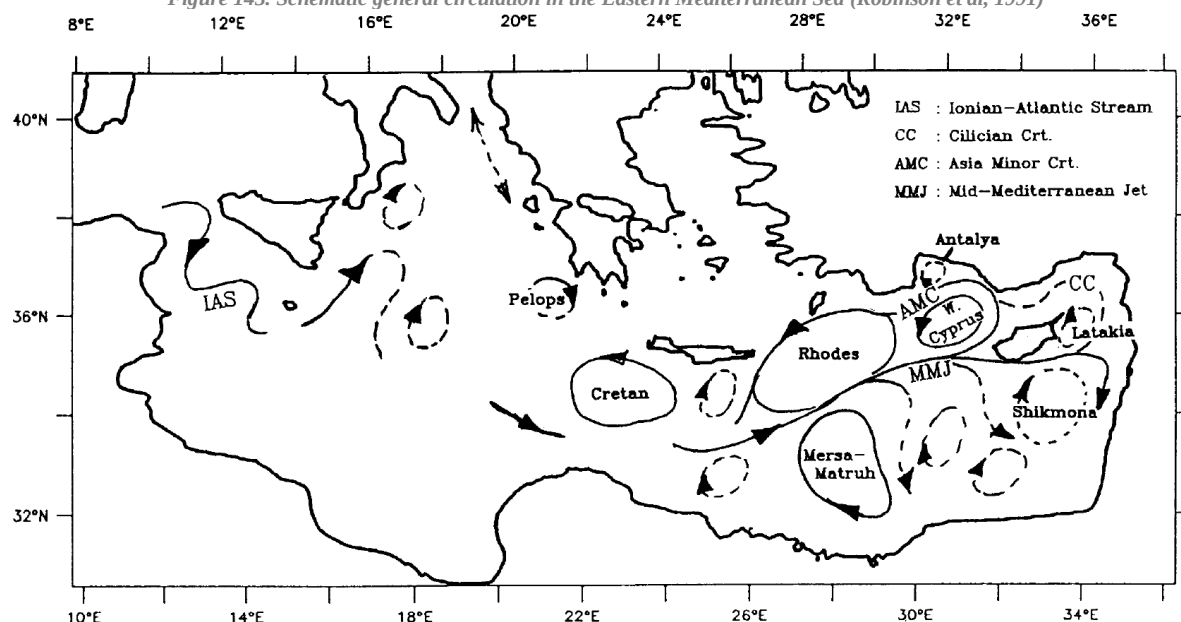


Figure 144. Locations of the major sub-basin eddies: Pelops Eddy (PE), Libyan Eddies (LE1 and LE2), Ierapetra Eddy (IE), Egyptian Eddy (EE), Eratosthenes Seamount Eddy (ESE) and Latakia Eddy (LE)

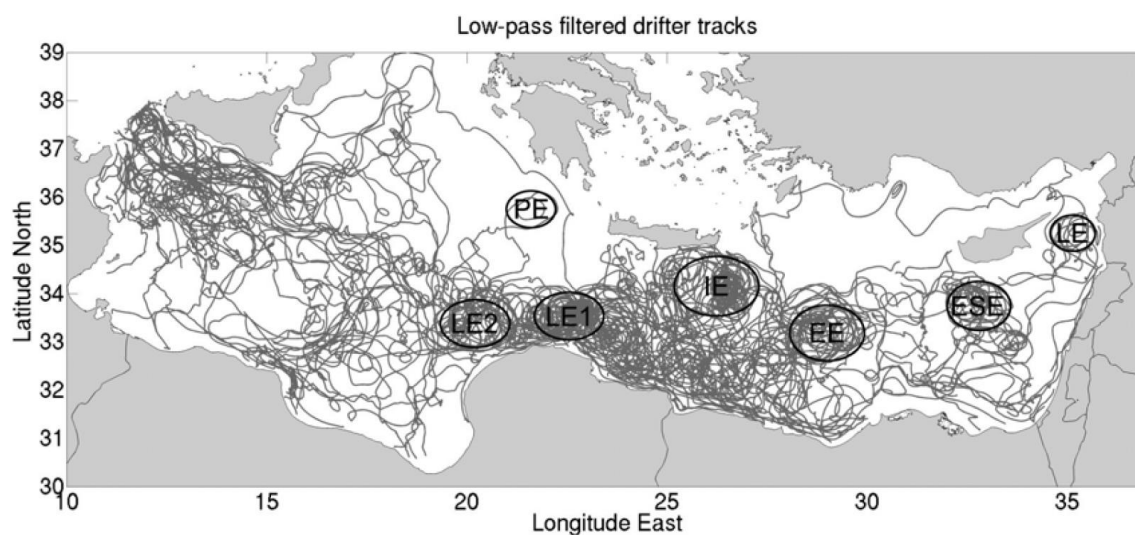
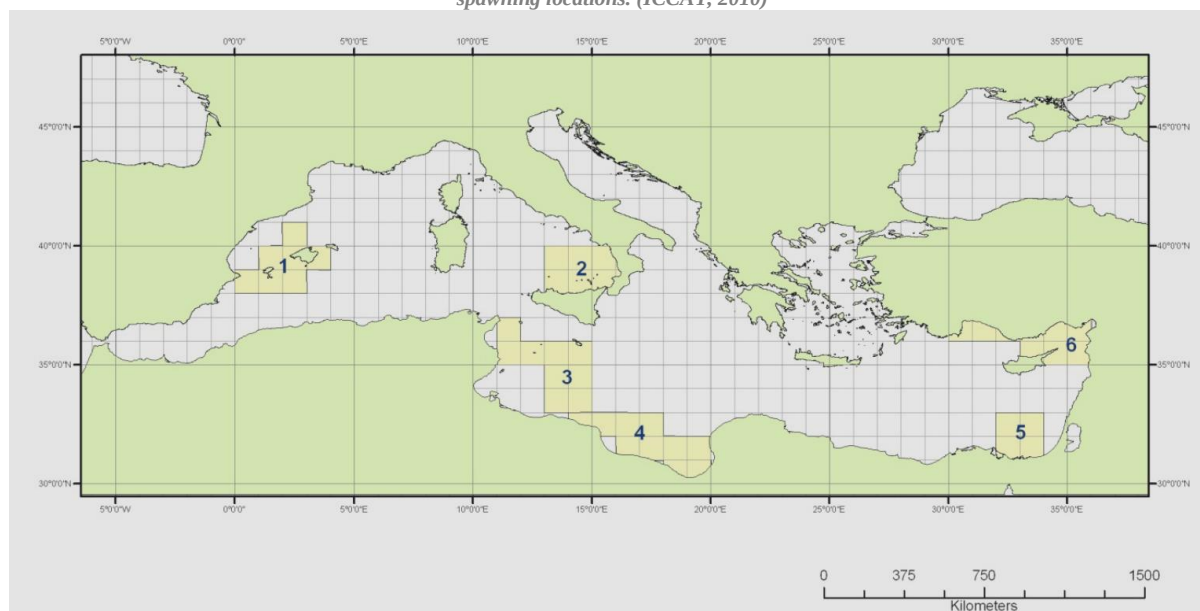


Figure 145. Spawning areas of *Thunnus thynnus* identified through analysis of VMS data used in the 2010 GBYP aerial survey program for surveying spawning biomass in the Mediterranean. These areas are consistent with current scientific knowledge of the main spawning locations. (ICCAT, 2010)



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37. KARPAS RIDGE

Description and key species

The site is located in the Northern Levantine Sea, North East of Cyprus and close to Turkey and Syria (see Figure 146). This area is under the influence of the Latakia Eddy (see Figure 147). As for the Latakia escarpement proposal, this area is of high interest because it is one of the most important spawning grounds for bluefin tuna (*Thunnus thynnus*). Furthermore, it is also within the distribution range of loggerhead and green turtle (*Caretta caretta* and *Chelonia mydas*). This area is under intense fishing pressure because of the relatively high presence of large pelagic fish. Sea bottom hosts mixed bottoms including rock outcrops, muddy beds, shell fragments, cobbles, etc. and important communities of seagrass (*Posidonia oceanica*) and algae (*Cystoseira crinita*, *Sargassum vulgare*, *Padina pavonica*, *Flabellia petiolata*, etc.) with the presence of diverse polychaetes, sponges, bryozoans, sipunculids, etc. (Açık *et al.*, 2005; Çınar, 2005; Kocak *et al.*, 2002).

Depth Range	Approx. 200-1000m
Jurisdictional status	Cyprus, Siria, turkey Territorial waters
Location (centroid)	Latitude: 35° 54,859' N Longitude: 34° 56,379' E
MedNet Proposal	YES
MEOW	Levantine Sea

KEY SPECIES	Features to be protected according CBD examples ¹⁰
<i>Caretta caretta</i> <i>Chelonia mydas</i> Large pelagics - fisheries <i>Thunnus thynnus</i> <i>Posidonia oceanica</i> <i>Cystoseira crinita</i> <i>Sarcotragus</i> sp.	Gyres Highly migratory fish Sea turtles Seagrass meadows

Assessment of the area against CBD EBSA Criteria

CBD EBSA Criteria (Annex I to decision IX/20)	Ranking of criterion relevance																																	
	No information	Low	Medium	High																														
Uniqueness or rarity																																		
Special importance for life-history stages of species				X																														
Spawning grounds for Bluefin tuna, but also other scombrids.																																		
Importance for threatened, endangered or declining species and/or habitats																																		
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<i>Posidonia oceanica</i>			Annex II	LC																														
Vulnerability, fragility, sensitivity, or slow recovery	X																																	
Biological productivity			X																															

¹⁰ UNEP/CBD/EWS.MPA/1/2. Examples of features that would meet the scientific criteria for identifying ecologically or biologically significant marine areas or species. UNEP/CBD/EWS.MPA/1/2. Appendix to Annex II.

Coastal occurrence of highly productive seagrass and algae beds				
Biological diversity	X			
Naturalness			X	

(*) IUCN Red List categories: Extinct (EX); Extinct in the wild (EE); Critically Endangered (CR); Endangered (EN); Vulnerable (VU); Near Threatened (NT); Least Concern (LC); Data Deficient (DD)

Maps and Figures

Figure 146. Location of the Karpas ridge

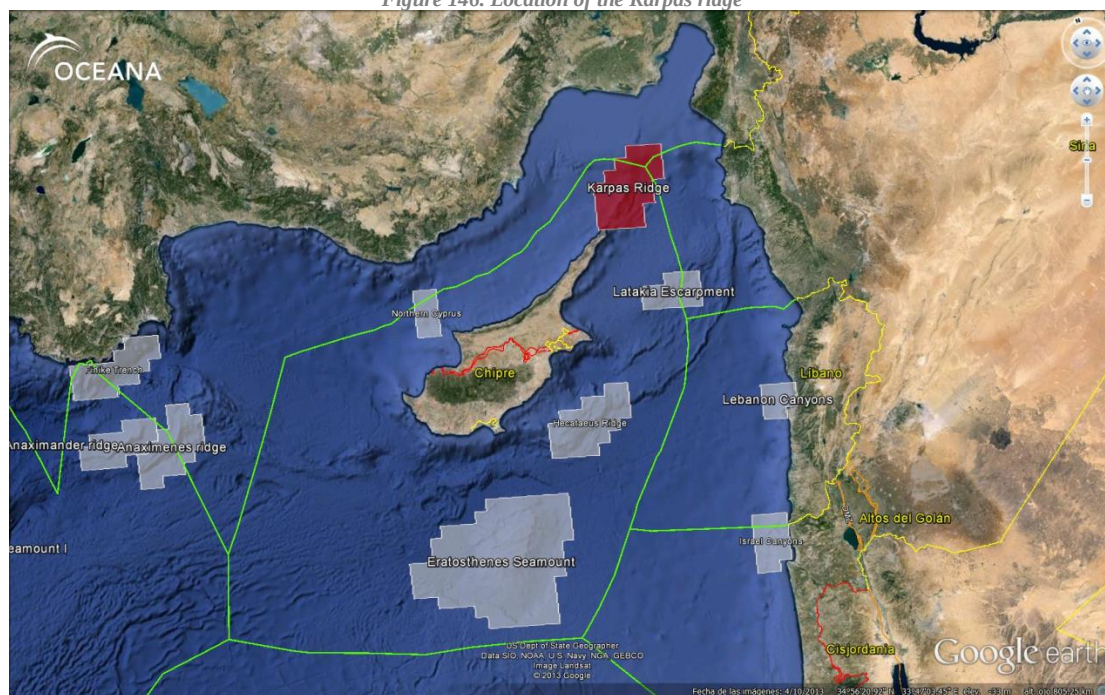
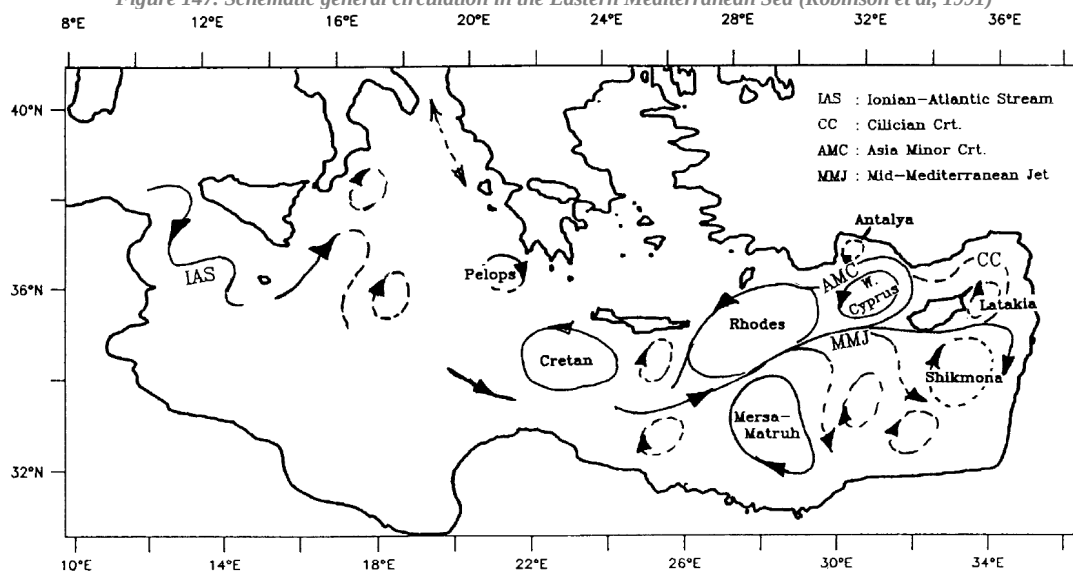


Figure 147. Schematic general circulation in the Eastern Mediterranean Sea (Robinson et al, 1991)



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Annex. Other material

- Information submitted to GFCM for FRA designation of the Balearic Seamounts (STANDARD FORMAT FOR THE SUBMISSION OF PROPOSALS FOR GFCM FISHERIES RESTRICTED AREAS (FRA) IN THE MEDITERRANEAN)
http://151.1.154.86/GfcmWebSite/SAC/SubCommittees/2010/FRAMontes_Baleares.pdf
- De Mol et al Cold-water coral colonization of Alboran Sea knolls, Western Mediterranean Sea

REPORTS:

- Oceana MedNet: 100 reasons to reach 10%
http://oceana.org/sites/default/files/reports/OCEANA_MEDNet_ING_16012012_0.pdf
- Balearic Seamounts 2010
http://oceana.org/sites/default/files/reports/OCEANA_Seamounts_Balearic_Islands_ENG.pdf
- Balearic Seamounts 2011
http://oceana.org/sites/default/files/reports/OCEANA_Montanas_submarinas_baleares_Canal_mallorca_2011_0.pdf
- Mediterranean areas of ecological importance
http://oceana.org/sites/default/files/reports/propuesta_areas_marinas_importancia_ecologica.pdf
- Bionomic study of Cabrera
http://oceana.org/sites/default/files/reports/oceana_estudio_bionomico_cabrera.pdf

POSTERS

- IMPORTANCE OF SEAMOUNT-LIKE FEATURES FOR CONSERVING MEDITERRANEAN MARINE HABITATS AND THREATENED SPECIES. 40th CIESM Congress 2013
http://oceana.org/sites/default/files/reports/OCEANA_Cartel_CIESM_web.pdf
- DEEP-SEA CORALLIGENOUS BEDS OBSERVED WITH ROV ON FOUR SEAMOUNTS IN THE WESTERN MEDITERRANEAN
http://oceana.org/sites/default/files/reports/Poster_Coraligeno_2009.pdf

VIDEOS

Further information from Oceana expeditions (images, footage, maps, etc.) is available upon request



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